

PRODUCTION, EXCHANGE AND REGIONAL TRADE IN THE ISLAMIC EAST MEDITERRANEAN: OLD STRUCTURES, NEW SYSTEMS?

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1. *Reconfigurations in the Early Islamic east*

When, in the seventh century, the diocese of *Oriens* was redefined as *Bilâd al-Shâm* by the Islamic conquest of Syria-Palestine, the east Mediterranean provinces of the early Byzantine (or, to others, Late Roman) empire were reconfigured to accommodate a profoundly new politico-military environment. In general terms the permanent physical detachment of Syria-Palestine from Byzantine control brought about a significant change in the status and orientation of the region. The geographical and cultural outlook of its people, already subjected to powerful agents of change in the half century before the Islamic conquest, were further modified by the establishment of a new Muslim administration. Previously a distant region on the eastern frontier of a Mediterranean empire, *Bilâd al-Shâm* was transformed into the geo-political heartland of a new Islamic empire. Between 660 and 750 Damascus formally served as the capital of this Empire, one that, by the early eighth century, spread from Spain to India. With the establishment of the 'Abbâsid caliphate in al-'Irâq (750) and the foundation of a new imperial capital at Baghdâd shortly after, the importance of *Bilâd al-Shâm* was clearly diminished. However the region's strategic location within the Islamic empire, and growing interaction with the Byzantine empire to the north, ensured continuing social, economic and military roles for *Bilâd al-Shâm* in the later eighth and ninth centuries.

Although it is now generally agreed that the imposition of Islamic hegemony left the existing social and cultural environment of *Bilâd*

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al-Shâm essentially intact, it remains more difficult to assess levels of disruption, if any, to production systems and trade networks, or the extent to which these developed in new directions under Islamic administration during the course of the eighth century. Arguably, economic structures were already in a fragile state at the time of the Islamic conquest, due to political and military upheaval in the last decades of Byzantine rule. Some attempt is made to clarify these issues in this chapter, predominantly from an archaeological perspective, although we are far from reaching any definitive statement.

Sources

Perhaps some comment on the range and quality of the source material, both written and archaeological, is necessary at the outset. Written sources for the eighth century are limited in number and scope.¹ In particular they pay scant attention to economic issues except taxation, and were mostly composed well after the events they purport to describe. Fortunately with archaeology the range of data is comparatively good, and includes excavated architecture, coins, pottery and other classes of material culture. A major drawback, however, is the inadequate reporting of archaeological discoveries, especially for the period under consideration. Early Islamic levels, often incidental to the main objectives of many projects, are usually reported only in brief (if at all) and the archaeological context of the material, both architecture and material culture, is frequently poor.² All too often the "Muslim" or "Arab" deposits are clumped together irrespective of age, and no progression in the archaeological data can be discerned. As a result, a number of major and important sites, although rich in Islamic occupation, offer little useful information on socio-economic conditions between the seventh and ninth centuries. Nevertheless the last two decades in particular have seen a tightening of research focus on the Early Islamic period, not-

¹ See B. Lewis, "Sources for the Economic History of the Middle East", in B. Spuler ed., *Wirtschaftsgeschichte des vorderen orientes in Islamischer Zeit* (Leiden, 1977), pp. 1-17 for a useful survey of the relevant written sources.

² R. Schick, "Palestine in the Early Islamic Period: Luxuriant Legacy", *Near Eastern Archaeology* 61 (1998), pp. 74-108 presents a concise and informative historical review of Early Islamic archaeology in Israel and Jordan. Depressing is the numerous mentions of sites with significant yet unpublished Islamic strata, for instance Jerusalem, 'Abdah, Khirbat al-Mafjar (except for architecture) and Udhruh.

ably in Jordan and Syria, involving the systematic, often problem-oriented, reconnaissance of regions and the survey and excavation of sites such as Aylah, 'Ammân Citadel, Jarash, Pella (Fihl/Tabaqat Fahl), Baysân and, in northern Syria particularly, Dêhès, al-Raqqah and the Balikh valley (fig. 1).³ Based upon the results of surveys and excavations such as these it has become possible to construct a quite detailed, if at times patchy, profile of economic activity in Early Islamic Bilâd al-Shâm, in which production and trade served a central function especially in the eighth century.

The historical environment

a. Seventh century dislocations

The seventh century stands as a defining moment in the history of the Middle East, and it was a particularly turbulent period for Oriens/Bilâd al-Shâm. In the first three decades of the century, Oriens was subjected to a succession of potentially disastrous calamities.⁴ In 602 the emperor Maurice Tiberias was overthrown by Phocas

³ These sites are referenced below. For recent interpretative analyses see, for instance, H.I. MacAdam, "Settlements and Settlement Patterns in Northern and Central Transjordan, ca 550-ca 750", in G.R.D. King and A. Cameron eds., *The Byzantine and Early Islamic Near East 2. Land Use and Settlement Patterns* (Princeton, 1994), pp. 49-93; Schick, "Palestine in the Early Islamic Period"; D. Whitcomb, "Islam and the Socio-Cultural Transition of Palestine - Early Islamic Period (638-1099 C.E.)", in T.E. Levy ed., *The Archaeology of Society in the Holy Land* (London, 1995), pp. 488-501; also the rigorous review by C. Foss, "The Near Eastern Countryside in Late Antiquity: A Review Article", *Journal of Roman Archaeology Supplementary Series* 14 (1995), pp. 213-34; and C. Foss, "Syria in Transition, A.D. 550-750: An Archaeological Approach", *Dumbarton Oaks Papers* 51 (1997), pp. 189-269; and more generally A. Cameron, *The Mediterranean World in Late Antiquity A.D. 395-600* (London, 1993). Place names pose a considerable problem, as many sites can have up to four or five names. In this study commonly accepted names have been used for well known localities such as Damascus or Jerusalem, archaeological names have been used for major sites (hence Pella instead of Early Islamic Fihl, modern Tabqat Fahl), or the Early Islamic name has been used (e.g. Aylah, modern al-'Aqabah in Jordan).

⁴ For historical studies of this period, each with its own approach, see F.M. Donner, *The Early Islamic Conquests* (Princeton, NJ, 1981); M. Gil, *A History of Palestine* (Cambridge, 1992); J. Haldon, *Byzantium in the Seventh Century. The Transformation of a Culture* (Cambridge, 1990); W. Kaegi, *Byzantium and the Early Islamic Conquests* (Cambridge NY, 1992); H. Kennedy, *The Prophet and the Age of the Caliphates: The Islamic Near East from the Sixth to the Eleventh Century* (London, 1986); I. Shahid, *Byzantium and the Arabs in the Sixth Century*, vol. 1 part 1: *Political and Military History* (Washington DC, 1995), and papers in A. Cameron ed., *The Byzantine and Early Islamic Near East 3. States, Resources and Armies*, Studies in Late Antiquity and Early Islam 1 (Princeton, NJ, 1995).

in a bloody usurpation of imperial rule; from 608 to 610 the revolt of the Heraclii spread from North Africa through Oriens towards Constantinople; shortly after Syria-Palestine was subjected to invasion and occupation by the Sassanid Persians until 628; then, as the *coup de grâce*, the region underwent total military conquest by the burgeoning Islamic caliphate (633-40). Furthermore during this time, in 638-39, much of the region was visited by the plague, perhaps twice. While any one of these events could have resulted in severe and potentially permanent disruption to prevailing economic structures, surely the combined shock—usurpation, invasion and endemic disease—should have been enough to deliver a fatal blow? Yet the evidence, historical and archaeological, would indicate otherwise. Excavations of numerous urban and rural sites with early seventh century occupation have failed to produce any specific evidence attributable to these potentially disastrous events. The village of Rihab, located east of Jarash, presents an interesting example. Two churches were built (or refurbished) during the middle years of the Sassanid occupation and, more tellingly, two further churches were erected in 635 right in the midst of the Muslim campaigns.⁵ Seemingly, neither the Sassanid nor Islamic conquest precipitated a social crisis in much of Syria-Palestine, and local community structures were essentially unchallenged by the greater historical events happening around them.

Nevertheless, there is a clear argument for a short-term dislocation. The Sassanid invasion in particular resulted in major damage to the urban infrastructure of a few major towns, specifically Antioch and at Jerusalem where Constantine's great *Martyrium* church was plundered.⁶ There was also significant economic loss, represented,

⁵ Plague: M.N. Dols, "Plague in Early Islamic History", *Journal of the American Oriental Society* 94 (1974), pp. 371-83. Rihab: M. Piccirillo, *The Mosaics of Jordan* (Amman, 1993); and more generally A. Shboul and A.G. Walmsley, "Identity and Self-Image in Syria-Palestine in the Transition from Byzantine to Early Islamic Rule: Arab Christians and Muslims", *Mediterranean Archaeology* 11 (1998) pp. 255-87, esp. pp. 284-86. For additional evidence for seventh century continuities, see below.

⁶ The extent of damage in Jerusalem is disputed, although claims that the monumental *Nea* church of Justinian was destroyed must be rejected on written and archaeological grounds. Damage to the *Martyrium*, which may have been burnt, must have been repaired by the time of the Islamic conquest, as this church with its golden dome attracted the admiration of the Muslims. The comparatively low level of urban destruction over much of the diocese of Oriens can be contrasted with the apparent devastation wrought on Anatolia (for which see C. Foss, "The Persians in Asia Minor and the End of Antiquity", *English Historical Review* 90 (1975), pp. 721-47).

for instance, by the concealment of coin hoards at the start of the seventh century. The burial of numerous and sizeable hoards in both precious and base metal points to growing social anxiety after the Sassanid sack of Antioch, and the non-recovery of these hoards further reveals that the Sassanid conquest of all Syria-Palestine (610-614) resulted in economic dislocation and personal loss on a reasonable scale.⁷ In general it would be misleading to underestimate the extent of socio-economic disruption caused by the political and military events of the early seventh century, but in the long run town and country survived surprisingly well the rigours of these three decades of upheaval. The character of the subsequent economic recovery, and the means and processes by which it was attained, are central to this study, with the growth of agricultural and industrial production and the forging of trade routes contributing significantly to the revival.

b. *The impact of the Umayyad caliphate (661-750)*

Social and political events in the later seventh and the first half of the eighth century set Bilâd al-Shâm firmly in the centre of a vast and continually growing empire, a position that could have only favoured economic growth.⁸ The most significant political event was the ascendancy of Mu'âwiyah, governor of Bilâd al-Shâm, to the caliphate and the resultant transfer of the capital of an ever expanding

⁷ Hoards that can be attributed to the Sassanid invasion include: D.T. Ariel, "A Hoard of Byzantine Folles from Qazrin", *Atiqot* 29 (1996), pp. 69-76; D.C. Baramki, "A Hoard of Byzantine coins", *Quarterly of the Department of Antiquities in Palestine* 8 (1938), pp. 81-85; G.M. Fitzgerald, *A Sixth Century Monastery at Beth-Shan* (Philadelphia, 1939); C. Lambert, "A Hoard of Byzantine Coins", *Quarterly of the Department of Antiquities in Palestine* 1 (1932), pp. 55-68; S.J. Mansfield, "Coin Hoards 1995: Near East, 68. Unknown (Near East), 1993 or before", *The Numismatic Chronicle* 155 (1995), pp. 354-58. Others can be plausibly attributed to the advance of the Muslim armies in the 630s (e.g. G.E. Bates, "A Byzantine Hoard from CoeleSyria", *American Numismatic Society Museum Notes* 14 (1968), pp. 67-109). These appear to be fewer in number, perhaps indicating a less disturbed time and/or greater recovery of buried wealth. Another rise in the concealment of hoards is discernible, possibly, during the power struggles over the caliphate in the 680s (see, as examples, W.E. Metcalf, "Three Seventh-century Byzantine Gold Hoards", *American Numismatic Society Museum Notes* 25 (1980), pp. 87-108; C. Morrisson, "Le Trésor Byzantin de Nikertai", *Revue Belge de Numismatique et de Sigillographie* 118 (1972), pp. 29-91).

⁸ For the political history of the period see, as a selection, P.K. Hitti, *History of the Arabs* (London, 1970), pp. 189-223; Kennedy, *The Prophet and the Age of the Caliphates*, pp. 82-123; M.A. Shaban, *Islamic History, a New Interpretation*, vol. 1: *A.D. 600-750 (A.H. 132)* (Cambridge, 1971); L.V. Vaglieri, "The Patriarchal and Umayyad Caliphates", *The Cambridge History of Islam*, vol. 1: *The Rise and Domination of the Arabs* (Cambridge, 1970), pp. 57-103.

Islamic empire to Damascus by 661. Over the next ninety years (661-750), the Umayyad caliphate he founded was underpinned by the economic and military resources of Bilâd al-Shâm, even though the decentralised nature of the Umayyad administration meant that only a small percentage of tax revenues were actually remitted to the central treasury in Damascus. A sizeable proportion of the gold and silver coin, olive oil and wheat collected as tax was retained and distributed at the provincial level, primarily to pay for the army and the local administration. Two alternative sources kept the central finances of the early Umayyad caliphate afloat: the booty and tribute resulting from the continuing wars of conquest, and major agricultural developments in the newly occupied lands.

In many ways the 680s marked the beginning of a new age of peace and prosperity in Bilâd al-Shâm. In socio-economic terms the most profound changes were initiated by the vigorous reform agenda of the Caliph 'Abd al-Malik (r. 685-705), which included a major overhaul of administrative and fiscal structures after 50 years of flat economic performance. Specifically the implementation of a unified monetary system and the refurbishment of roads boosted trade in Bilâd al-Shâm and throughout the Empire. The caliphates of 'Abd al-Malik and his sons al-Walîd (705-15) and Sulayman (715-17) were characterised by the channelling of considerable surplus wealth into large and numerous building projects, mostly state programmes but private initiatives as well. New towns were founded, for instance al-Ramlah on the coastal plain of Palestine, and major centres embellished with impressive imperial structures notably the Dome of the Rock and al-Aqsa mosque in Jerusalem, and the Great Mosque of Damascus.⁹ Under the later Umayyads, particularly Hishâm (724-43), commerce was further encouraged by the construction of new urban market places, and rural agricultural development programmes were accelerated to compensate for declining returns from military campaigns and inadequate tax receipts from the provinces.

As this paper sets out to show, the strongly pro-development activities of the Umayyads brought demonstrable economic benefits to a wide section of society in Bilâd al-Shâm, noticeably from the time of 'Abd al-Malik. The presence of wealthy urban elites, the main-

⁹ For a convenient and comprehensive review of religious and secular buildings of the Umayyad period in Bilâd al-Shâm see: K.A.C. Creswell revised by J.W. Allen, *A Short Account of Early Muslim Architecture* (London, 1989), pp. 18-226.

tenance of an army, improved intra- and inter-regional communications and major capital works programmes in towns and the countryside directly and indirectly stimulated many other areas of economic activity. The archaeological and written evidence argues for a considerable growth in production and trade during the first decades of the eighth century, especially the expansion of urban-based manufacturing activities and the development of rural industries.

c. *The 'Abbâsid challenge*

Although many of the Umayyad economic improvements were to outlive the dynasty, the spectacular gains of the early eighth century were threatened by events in the second half, primarily the successful 'Abbâsid rebellion (748-50) and the geographical shift of the ruling household to al-'Irâq, ultimately Baghdâd.¹⁰ However the suddenness of the geo-political change, and its economic impact, should not be unduly emphasised. The later Umayyads spent long periods outside of Damascus and the last Caliph, Marwân II (744-50), went further by transferring the imperial capital to the Jazîrah (north-west Mesopotamia). Many governmental structures remained intact after the 'Abbâsid take over and were possibly strengthened in line with the centralising policies of the 'Abbâsids and to counter pro-Umayyad movements in parts of Bilâd al-Shâm, which sometimes spilled over into ineffectual rebellion. Even after the establishment of Baghdâd by al-Mansûr (754-75), Bilâd al-Shâm retained a strategically crucial position between al-'Irâq and the increasingly important province of Egypt. Furthermore the growing sanctity of Jerusalem (early Islamic Iliyâ) and other holy places greatly enhanced the standing of Palestine (Filastîn) during the 'Abbâsid period.¹¹

For the last two decades of our period the 'Abbâsid caliphate was racked by civil war. Although the conflict was fought outside of Syria,

¹⁰ See especially the following for the political history of the 'Abbâsid dynasty: Hitti, *History of the Arabs*, pp. 288-331; Kennedy, *The Prophet and the Age of the Caliphates*, pp. 124-57; M.A. Shaban, *Islamic History, a New Interpretation*, vol. 2: A.D. 750-1055 (A.H. 132-448) (Cambridge, 1976).

¹¹ The development of Jerusalem (*Bayt al-Maqdis*, or simply *al-Quds* "the Holy") as a sacred city in early Islam accelerated after the end of the Umayyad dynasty, for which see A. Elad, *Medieval Jerusalem and Islamic Worship. Holy Places, Ceremonies, Pilgrimage* (Leiden, 1995); S.D. Goitein, "The Sanctity of Jerusalem and Palestine in Early Islam", *Studies in Islamic History and Institutions* (Leiden, 1966), pp. 135-48; F.E. Peters, *Jerusalem: the Holy City in the Eyes of Chroniclers, Visitors, Pilgrims, and Prophets from the Days of Abraham to the Beginnings of Modern Times* (Princeton, NJ, 1985).

and was followed by an impressive 'Abbâsid revival, it resulted in permanent changes to social and military structures in the Islamic world and a significant break with the past. Most notably traditional Muslim elites were politically and economically disenfranchised, losing their salary entitlements (*'atâ'*) established at the time of the Islamic conquest, and the imposition of strong central government abruptly ended the administrative (especially fiscal) independence of provinces.¹² The proceeds of these gains were channelled into a slave army, further undermining the standing of traditional elites. Hence just as 680 and the reforms of 'Abd al-Malik represent a relevant date to begin this study, so 830 presents an ideal date with which to end it.

2. *Towns, ports and roads: the infrastructure of trade*

An unbroken socio-economic role for towns

The persistent Persian threat of invasion to the towns of Roman and Byzantine Syria-Palestine, which on more than one occasion had become a reality, had taught the ruling urban elites that piecemeal resistance was futile. Much more was to be gained by negotiating with the conquering forces to preserve, by surrender, the existing urban fabric. Accordingly, the Sassanid occupation of 611-628 proceeded with only occasional disruption to urban life, although Antioch and Jerusalem both suffered. However, with Jerusalem the damage was seemingly confined to the town's imperial church monuments: Constantine's *Martyrium* and Justinian's *Nea*. By comparison the Islamic conquest of 633-40 was overwhelmingly non-destructive, even in the few cases where towns were taken by military action (notably Caesarea/Qaysâriyah in Palestine).¹³ Most towns readily capitulated

¹² The strong centralising policies of the 'Abbâsid caliph al-Ma'mûn (813-833) is reflected, for instance, in his major reforms of the coinage—the first since 'Abd al-Malik—in the 820s. It followed a protracted period of instability resulting from a dispute over succession to the caliphate with his brother al-Amîn (809-813); see T. El-Hibri, "Coinage Reform under the 'Abbasid Caliph al-Ma'mun", *Journal of the Economic and Social History of the Orient* 36 (1993), pp. 58-83.

¹³ See the major corrective to earlier views of a destructive conquest of Qaysâriyah in K.G. Holum, "Archaeological Evidence for the Fall of Byzantine Caesarea", *Bulletin of the American Schools of Oriental Research* 286 (1992), pp. 73-85. Even in the few cases where towns repudiated their original agreements with the Muslim generals, for instance Tabariyah, 'Asqalân and Antioch, agreements were renegotiated and mil-

to the Muslim armies by treaty (*sulh*), which ensured personal, civic and religious rights upon payment of poll and land taxes. Consequently the urban structure of Bilâd al-Shâm was largely unscathed by the Sassanid and Islamic conquests.

The immediate and considerable concern of the early Caliphate with the continuing urban health of Bilâd al-Shâm can be seen, along with other policy decisions, in the institution of a new provincial structure. Bilâd al-Shâm was divided into four, later five, military provinces, the *ajnâd*, in which towns retained administrative responsibilities (mostly taxation) for the surrounding district (*kûrah*).¹⁴ Along with maintaining a major administrative role, towns remained the cultural and economic foci of their districts, with many continuing to host large annual fairs. These not only enhanced commercial life but also brought intellectual benefits to both urban populations and the rural hinterland. Certain towns were also granted the responsibility of issuing copper coin (the *fals*, pl. *fulûs*) during the monetary reforms of 'Abd al-Malik in the 690s (only Damascus issued coin in precious metals).¹⁵ The appearance of an officially sanctioned copper

itary retribution avoided: see: Al-Baladhuri, *The Origins of the Islamic State*, trans. P.K. Hitti (Beirut, 1966 [1916]) pp. 179 (Tabariyah), 219 ('Asalân), 227 (Antioch).

¹⁴ For the structure and towns of the *ajnâd* in south Bilâd al-Shâm see: A.G. Walmsley, *The Administrative Structure and Urban Geography of the Jund of Filastin and the Jund of al-Urdunn: the cities and districts of Palestine and east Jordan during the early Islamic, 'Abbasid and early Fatimid periods* (Ph.D. thesis, University of Sydney, 1987). While I. Shahid sees a Byzantine "proto-theme" origin for the *ajnâd* (I. Shahid, "The Jund System in Bilad al-Sham: Its Origin", in M.A. Bakhit and M. Asfour eds., *Proceedings of the Fourth International Conference on the History of Bilad al-Sham. Bilad al-Sham during the Byzantine Period*, English Section, Vol. 2 (Amman, 1986), pp. 45-52; I. Shahid, "Heraclius and the Theme System: New Light from the Arabic", *Byzantion* 57 (1987), pp. 391-406; I. Shahid, "Heraclius and the Theme System: Further Observations", *Byzantion* 59 (1989), pp. 209-43), J. Haldon and the current author have independently argued that the *ajnâd* were an outcome of the Islamic conquest of al-Shâm (J. Haldon, "Seventh-Century Continuities: the *Ajnâd* and the 'Thematic Myth'", in A. Cameron ed., *The Byzantine and Early Islamic Near East 3. State, Resources and Armies*, Studies in Late Antiquity and Early Islam 1 (Princeton, 1995), pp. 379-423; Walmsley, *The Administrative Structure and Urban Geography of the Jund of Filastin and the Jund of al-Urdunn*), which is in line with W. Kaegi's thinking on the subject, that is, no major changes to governmental institutions under Heraclius (see: W. Kaegi, "Two Studies in the Continuity of Late Roman and Byzantine Military Institutions", *Byzantinische Forschungen* 8 (1982), pp. 87-113).

¹⁵ Annual fairs in major centres attained an "international" stature in the Byzantine period, for instance that at Ghazzah (Gaza) in southern Palestine, which was attended by Pre-Islamic traders from Makkah. These continued unabated after the Islamic conquest. In the later seventh century Jerusalem hosted a fair attended by "a huge crowd from almost every country and many nationalities", according to Arcuf the Pilgrim who visited in c. 679-688 (J. Wilkinson, *Jerusalem Pilgrims Before the Crusades*

coinage seemingly replaced informal minting in the decades between c. 660 and 692. While all provincial capitals were authorised to issue *fulûs*, it is unclear why only some of the district centres were given minting responsibilities, but the pattern would seem to reflect a level of administrative, commercial and perhaps urban seniority. The wide circulation of this coinage in eighth century Bilâd al-Shâm, and the discovery in site finds and hoards of coins minted in other regions of the Islamic world, is a valuable indicator of trade networks (see further below).

Markets: the sūq and khân

Markets for the manufacture and exchange of goods constitute a defining feature of the Early Islamic town in Bilâd al-Shâm. The appearance in the Middle East of the "medieval" *sūq*, a covered market street joining mosque, bath (*hammâm*) and warehouse (*khân*), has been the focus of much interest in Islamic scholarship.¹⁶ Particular attention has been paid to describing the process by which the broad, open thoroughfares of the Classical cities in the East were transformed into the "medieval *sūq*". In the pioneering studies of Jean Sauvaget on Lâdhikīyah, Damascus and especially Aleppo (Halab) in Syria, this process was seen as an entirely Islamic phenomenon and, in some way, represented the cultural reassertion by the "Oriental" east over an ordered, Hellenized urban environment.¹⁷ In the per-

(Warminster, 1977), p. 95). On early Islamic numismatics and the reforms of 'Abd al-Malik see especially M.L. Bates, "The Arab-Byzantine Bronze Coinage of Syria: An Innovation by 'Abd al-Malik", *A Colloquium in Memory of George Carpenter Miles (1904-1975)* (New York, 1976), pp. 16-27; M.L. Bates, "History, Geography and Numismatics in the First Century of Islamic Coinage", *Revue Suisse de Numismatique* 65 (1986), pp. 231-62; M.L. Bates, "Byzantine Coinage and its Imitations, Arab Coinage and its Imitations: Arab-Byzantine Coinage", *ARAM* 6 (1994), pp. 381-403; P. Grierson, "The Monetary Reforms of 'Abd al-Malik. Their Metrological Basis and their Financial Repercussions", *Journal of the Economic and Social History of the Orient* 3 (1960), pp. 241-64.

¹⁶ For these buildings within their sociological setting see E. Sims, "Trade and Travel: Markets and Caravanserais", in G. Michell ed., *Architecture of the Islamic World. Its History and Social Meaning* (London, 1978), pp. 97-111.

¹⁷ See the classic studies by J. Sauvaget, "Esquisse d'une histoire de la ville de Damas", *Revue des Études Islamiques* 8 (1934 [1937]), pp. 422-80; J. Sauvaget, *Alep* (Paris, 1941); also E. Wirth, "Zum Problem des Bazars (*sūq*, *çarsi*). Versuch einer Begriffsbestimmung und Theorie des traditionellen Wirtschaftszentrums der orientalisches-islamischen Stadt", *Der Islam* 51/52 (1974/1975), pp. 203-60, 206-46, N. Al Sayyad, *Cities and Caliphs: on the Genesis of Arab Muslim Urbanism* (New York,

haps most influential of his studies, that on Aleppo, Sauvaget ascribed the "fall" from the Graeco-Roman urban ideal to the socio-political disorder that characterised the tenth and eleventh centuries.¹⁸ As Sauvaget was dealing with still functioning towns, he relied upon historical rather than archaeological evidence to date the formation of the Syrian sūq. However by drawing on an alternative source of evidence, archaeology, Kennedy concluded that the process of sūq formation began considerably earlier, principally from the mid sixth century and onwards, and was well advanced by the early seventh century (that is, at the time of the Islamic conquest).¹⁹ To Kennedy the process remained the same—the invasion of public space and the "decline of the classical city"—but it was initiated long before the arrival of Islam and was indicative of a political, economic and demographic collapse of towns that weakened Bilād al-Shām in the lead up to the Islamic conquest.

New archaeological work conducted since the publication between 1985 and 1992 of Kennedy's now oft-cited papers reveals that the whole issue of urban change, particularly the form and status of markets, in Late Antique-Early Islamic Bilād al-Shām is considerably more complicated than the essentially single, linear and irreversible process described by Sauvaget and Kennedy.²⁰ What is very clear (and illustrated in this section) is that no one "universal" trend can be recognised between the seventh and early ninth centuries, except for an overall expansion of the commercial role of many towns. In some instances, this expansion was achieved by commandeering central space in existing towns to produce an enclosed, sūq-like

1991) for a general treatment, especially pp. 18-33 and 90-107 for Damascus and Aleppo; and N. Elisséeff, "Dimashk", *Encyclopaedia of Islam, New Ed.* 2 (Leiden, 1965), pp. 277-91 for Damascus.

¹⁸ Sauvaget, *Alep*; see also the analysis by R.S. Humphreys, *Islamic History. A Framework for Inquiry* (Princeton, 1991), pp. 234-38.

¹⁹ H. Kennedy, "The Last Century of Byzantine Syria: A Reinterpretation", *Byzantinische Forschungen* 10 (1985), pp. 141-84; H. Kennedy, "From *Polis* to *Madina*: Urban Change in Late Antique and Early Islamic Syria", *Past & Present* 106 (1985), pp. 3-27; H. Kennedy, "Antioch: from Byzantium to Islam and back again", in J. Rich ed., *The City in Late Antiquity* (London, 1992), pp. 181-98 at pp. 192-93, drawing together archaeological results from Antioch, Jarash, Apamea, Busrā and other sites.

²⁰ See: R. Foote, "Commerce, Industry and Orthogonal Planning: mutually compatible terms in settlements of Bilād al-Shām during the Umayyad period", *Mediterranean Archaeology* 12 (1999) for a major study of the growing evidence for a continuing tradition of ordered urban planning in Early Islamic Bilād al-Shām and the considerable expansion of commercial and industrial activities in towns under the Umayyads.

structure (eg. Palmyra, see below). However, there is considerable new evidence for the simultaneous construction of broad, shop-lined thoroughfares in both new and existing towns, resulting in an urban vista reminiscent of the eastern "Classical City".

a. *Market streets and the "sûq" question*

The evidence for new and expanded markets within existing towns in Early Islamic Bilâd al-Shâm is widespread, especially for the eighth century. However, the way markets were accommodated within the prevailing urban plan varied, from the conversion and modification of existing space to the construction of completely new market centres, with varieties in-between. New and remodelled structures could be present in a single town. For the purposes of this study, a few examples from better dated and reported sites will suffice. Evidence for the remodelling of existing space can be found at Palmyra, Baysân, Jarash, Bayt Râs and Pella, whereas instances of more substantial rebuilding programs are known from Arsûf, Baysân again, Tabariyah and, following a devastating earthquake, also Pella (fig. 1). Archaeologically it can be demonstrated that the commercial development of these sites was particularly intense during the later seventh and eighth centuries.

In Palmyra, the central course of the main colonnaded street north west of the tetrapylon was infilled with a long line of shops to produce a market centre very reminiscent of a sûq.²¹ Excavations exposed 45 shop units extending 180 m and divided into two sections, without the western end of the sûq being reached. At least four phases in construction can be identified, with shops 10-17 forming the original nucleus of the eastern wing (pl. 1). However the excavators concluded that the whole sûq was erected over a relatively short time in either the late seventh or early eighth century.²² The new line of shops opened northwards onto a lane, roughly the width of the earlier north footpath of the street. At the same time, the original shops on the north side of the street were reutilized. The development

²¹ K. As'ad and F.M. Stepniowski, "The Umayyad Suq in Palmyra", *Damaszener Mitteilungen* 4 (1989), pp. 205-23.

²² The archaeological evidence, as far as it is presented, does not support a late seventh century date for this construction, which seems too early. Rather the development of nearby sites, especially Rusâfah, Qasr al-Hayr al-Gharbî and Qasr al-Hayr al-Sharqî, would suggest a date in the reign of the Caliph Hishâm (724-43), which is in general agreement with the evidence from the excavations.

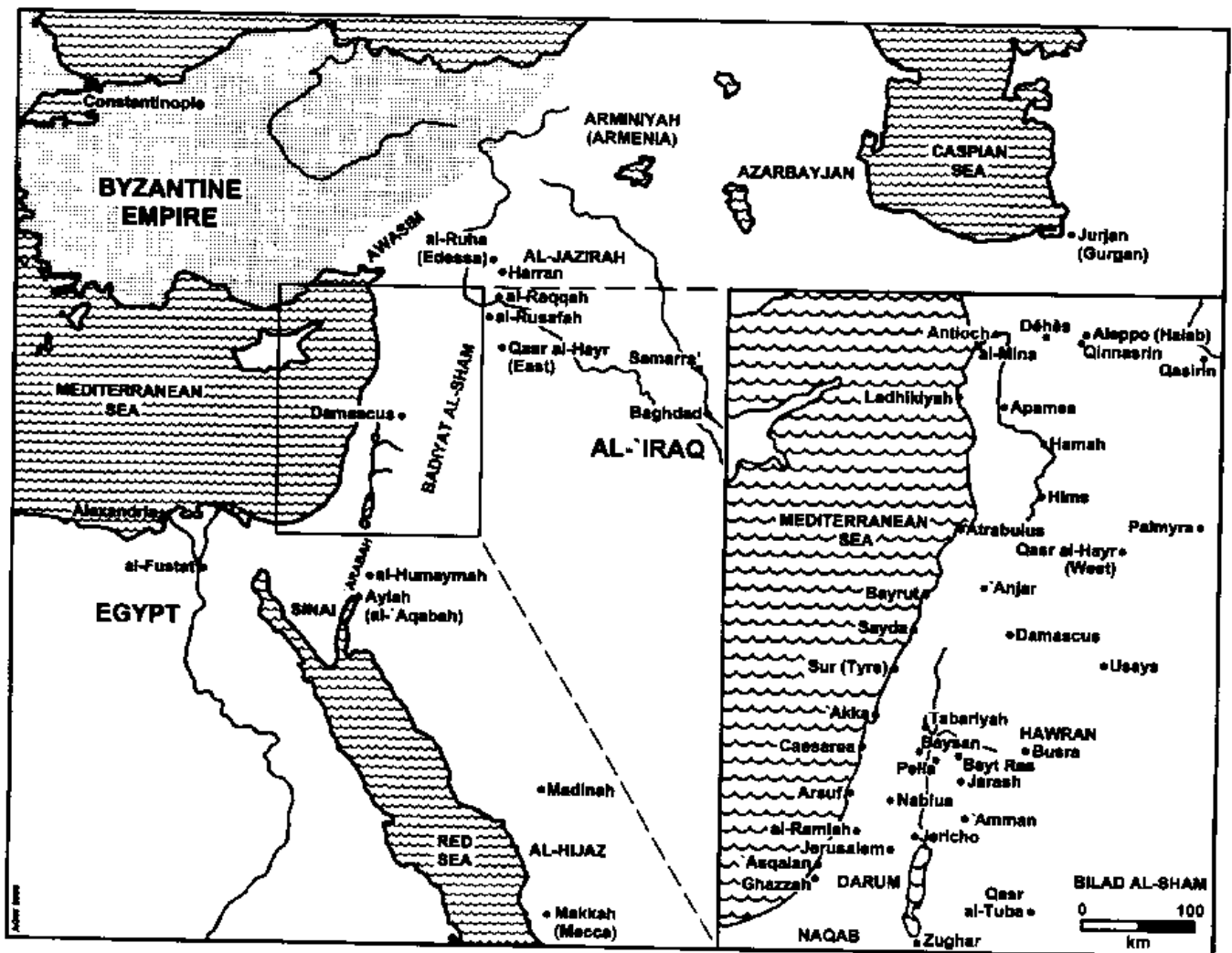


Fig. 1. Bilād al-Shām and the central Islamic lands in the second half of the eighth century.



Pl. 1. Portico and doorways into a row of shops in the heart of the Umayyad sūq of Palmyra.

resulted in a large commercial complex composed of an axial walkway some seven metres wide and flanked on either side by a near-continuous line of around 100 shops. The complex continued to be occupied into the 'Abbâsid period, although the nature of this occupation (commercial or domestic) is uncertain. While the Palmyra sūq may seem to represent a clear case of encroachment on a "classical" urban infrastructure, it could have been intended as an improvement to this stretch of the colonnaded street. Here the south facade of the street was little more than a continuous wall, and the line of new shops over the street may have been meant to overcome the inconvenience and inefficiency of having a single line of shops.

At Baysân, Jarash and Bayt Râs a similar picture of urban modification can be demonstrated, although on a less comprehensive scale than at Palmyra. Shops and possibly small manufacturing units, indicated by the presence of small ovens,²³ were built over the central thoroughfare at Baysân, progressively narrowing a major access route to a narrow lane. Based on a literal reading of the numismatic evidence, the excavators date the start of this process to the late fifth or early sixth century, but this seems to reflect the urban adaptation of a pagan edifice under early Christianity. Elsewhere they ascribe an early seventh century date, which seems more likely for the commercial development of the town centre, with construction increasing in intensity during the Umayyad period.²⁴ The trend is very much the same at Jarash (although more poorly recorded), with the area from the Oval Piazza to the South Tetrapylon Piazza developing into a busy and congested commercial town centre, apparently to the detriment of outer suburbs.²⁵ Concentrated into an area

²³ Small ovens, or *tabûns*, are often interpreted as indicative of domestic occupation, but equally they could have been used in an industrial context, such as smelting small crucibles of copper or glass. There is evidence for such a link in the 'Abbâsid complex at Pella.

²⁴ G. Foerster and Y. Tsafrir, "City Center (North); Excavations of the Hebrew University Expedition", *Excavations and Surveys in Israel 11: The Bet She'an Excavation Project (1989-1991)* (Jerusalem, 1993), pp. 3-32 at pp. 18-19, 22-23. For an early seventh-century date for a rapid increase in the urban infilling of towns see: A.G. Walmsley, "Byzantine Palestine and Arabia: Urban Prosperity in Late Antiquity", in N.J. Christie and S.T. Loseby eds., *Towns in Transition: Urban Evolution in Late Antiquity and the Early Middle Ages* (Aldershot, 1996), pp. 126-58 at pp. 144-45.

²⁵ Walmsley, "Byzantine Palestine and Arabia", with references; for an original analysis of settlement in Late Antique and Early Islamic Jarash (although not without its problems) see A. Zeyadeh, *An Archaeological Assessment of Six Cities in al-Urdun: From the Fourth Century to the Mid-Eighth Century A.D.* (M.A. thesis, Yarmouk University, Jordan, 1988), pp. 83-118, who correctly emphasises the commercial nature of occupation in the area of the two piazzas and south cardo.

almost 300 m in length and covering the space of the two piazzas were shops, light industrial installations and domestic residences.²⁶ In the south-west quadrant of the South Tetrapylon a large new building was erected, extending partly over the piazza. The building's plan, rectangular with corner towers and porticoes, indicates that it served a public function, perhaps administrative but possibly also commercial as a *khân*. Shops and light industry were also uncovered along the *cardo* north of the South Tetrapylon, extending over roughly another 150 m. Continuity of use in the eighth century of a market at Bayt Râs can also be demonstrated.²⁷ Originally constructed in the Roman period as part of a tiered marketplace, by c. 600 the *sûq* (as termed by the excavator) consisted of nine vaults in a line, all but one of which were rebuilds of the fourth or fifth century. In the seventh or early part of the eighth century, an arcade was constructed in front of the vaults, expanding the area of the market and creating an enclosed space. Further refurbishment of the area was undertaken in the ninth to tenth century, when it continued as a market.

The promotion of town-based commerce in the eighth century through the construction of new market centres within existing urban centres can be demonstrated at three major sites: Baysân, Arsûf and Tabariyah. At Baysân, first reports ascribed the building of a new commercial street for the town to the Byzantine period, but the recent discovery of a Kufic inscription now firmly dates this major urban project to the reign of the Umayyad Caliph Hishâm.²⁸ An

²⁶ C.S. Fisher, "Roman Buildings V. Buildings Partly Excavated. D. The 'Forum'", in C.H. Kraeling ed., *Gerasa, City of the Decapolis* (New Haven, 1938), pp. 153-58; L. Harding, "Recent Work on the Jerash Forum", *Palestine Exploration Quarterly* 81 (1949), pp. 12-20; C.H. Kraeling, "Roman Buildings III. The South Tetrapylon", in *Gerasa, City of the Decapolis*, pp. 103-15; also Zeyadch, "An Archaeological Assessment of Six Cities in al-Urdun", pp. 96-103; A. Zeyadeh, "Urban Transformations in the Decapolis Cities of Jordan", *ARAM* 4 (1992), pp. 101-15 at pp. 104-106.

²⁷ C.J. Lenzen and E.A. Knauf, "Beit Ras/Capitolias. A Preliminary Evaluation of the Archaeological and Textual Evidence", *Syria* 64 (1987), pp. 21-46; C.J. Lenzen, "From Public to Private Space: Changes in the Urban Plan of Bayt Ras/Capitolias", in K. 'Amr, F. Zayadine and M. Zaghoul eds., *Studies in the History and Archaeology of Jordan*, vol. 5 (Amman, 1995), pp. 235-39.

²⁸ For the earlier Byzantine dating see Foerster and Tsafir, "City Center (North)", pp. 25-32; for the redating to Hishâm refer to Y. Tsafir and G. Foerster, "Urbanism at Scythopolis-Bet Shean in the Fourth to Seventh Centuries", *Dumbarton Oaks Papers* 51 (1997), pp. 85-146 at pp. 123, 138-40. The "Byzantine Commercial Street" of Baysân stands as another example of attributing, without justification, the refurb-

earlier ("Roman") pool and colonnade were covered over by the construction of more than 20 shops, approached by a covered walkway lined on the street side with piers and columns supporting arches (fig. 2). The inscription, composed of mosaic, once adorned the entry gate to the market, and displayed the order of Hishâm to the governor of the province of al-Urdunn (Jordan) to undertake the construction of the market, presumably from provincial funds. While, as Foote notes, Hishâm instructed the building of sùqs throughout the Islamic empire, the Baysân example is the first firm evidence for the application of this policy although Baysân is not specifically mentioned in this context. A similar major redevelopment, resulting in the creation of a new market street, can be observed at the coastal town of Arsûf.²⁹ Relatively narrow (2.5 m) and long (65 m+), the open street was flanked on both sides by a series of single and double-roomed shops and courtyards, delineated along the street by shallow entrance bays. According to the excavators the Arsûf sùq was a development of 'Abd al-Malik, although the pottery recovered from the earliest stratum appears 'Abbâsid in date. Perhaps this sùq can also be attributed to Hishâm, or even later (early 'Abbâsid?). The street had an extended life, probably until the Crusades, with eight superimposed street levels being identified. A similar profile can be suggested for the small area of shops and street excavated at Tabariyah.³⁰ This town, newly appointed as capital of al-Urdunn, expanded considerably after the Islamic conquest, spreading over previously unoccupied fields and a cemetery south of the walled Byzantine town in the eighth and ninth centuries. The line of the Roman period cardo was continued from the South Gate, and the new street provided with shops. Shops were also a feature within the confines of the Byzantine town, and in due course (the date is unclear from the reports) these impinged on the paving of the Roman-Byzantine street.

The excavations at Baysân, Palmyra, Arsûf and Tabariyah demonstrate conclusively that the provision of linear and ordered market

bishment of towns to the Justinianic period, whereas there were equally favourable conditions in the later sixth, much of the seventh and certainly the first half of the eighth centuries.

²⁹ I. Roll and E. Ayalon, "The Market Street at Apollonia-Arsuf", *Bulletin of the American Schools of Oriental Research* 267 (1987), pp. 61-76.

³⁰ G. Foerster, "Tiberias. Excavations South of the City", in E. Stern ed., *New Encyclopaedia of Archaeological Excavations in the Holy Land* 4 (Jerusalem, 1993), pp. 1470-73.

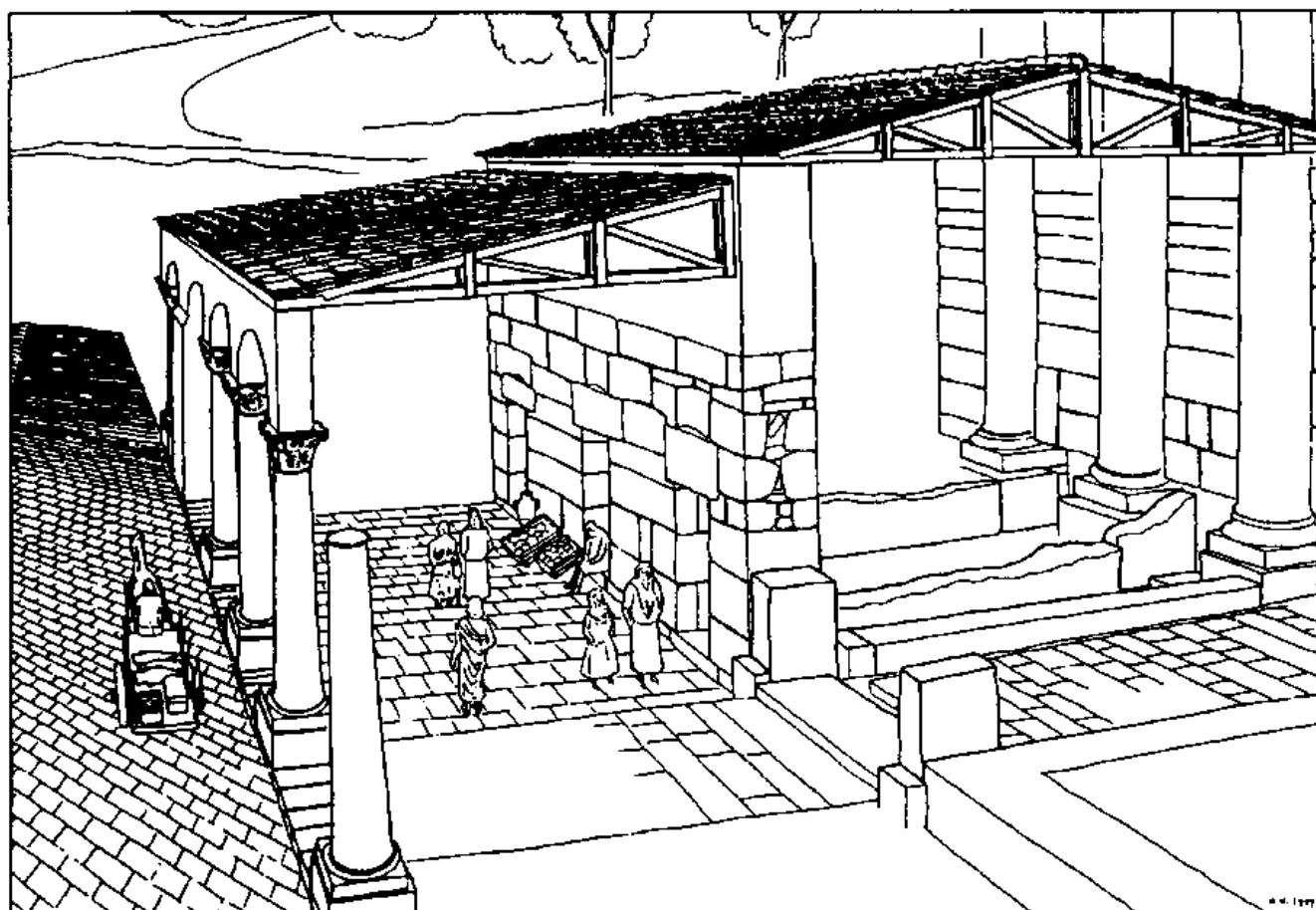


Fig. 2. Preliminary reconstruction of the Umayyad marketplace at Baysân (from Y. Tsafir and G. Foerster, 'From Scythopolis to Baysân – changing concepts of Urbanism', in G.R.D. King and A. Cameron eds., *The Byzantine and Early Islamic Near East 2. Land Use and Settlement Patterns* (Princeton, 1994), pp. 95-115, fig. 16).

streets was a common feature of towns in Early Islamic Bilād al-Shām. There was no monodirectional process of irreversible urban decay following the Islamic conquest. Indeed quite the opposite appears true—an urban revival in many areas after the upsets of the early seventh century—and we can only speculate about street refurbishment in other major towns especially Damascus. Once this point is understood the gridded and shop-lined streets of the new Islamic settlements of the seventh and eighth centuries do not appear unusual or, indeed, atypical for the period. ‘Ayn al-Jarr (‘Anjar in Lebanon), Aylah (al-‘Aqabah) and seemingly al-Ramlah, all new foundations,³¹ were divided into quadrants by intersecting, shop-lined streets with tetrapylon-style monuments at the main crossroads.³² As one Arabic source remarked the foundation of al-Ramlah by Sulayman, governor of Filastīn and later caliph, “ruined” neighbouring Ludd,³³ and an economic cause for this decline can be easily identified. Sulayman would have made every attempt to ensure the long-term viability of his new foundation, including the intentional relocation of commercial activity to al-Ramlah by the construction of markets. The denial to Ludd of any significant involvement in the rapidly growing market economy of the early eighth century resulted in stagnation and ensured its demise.

b. *Khâns*

The prevalence of shop-lined streets in the Early Islamic towns, new and old, of Bilād al-Shām highlight the absolutely central role of the market economy in the later seventh and eighth centuries. The identification of a second institution, specifically a large enclosed and

³¹ Or rather new, enclosed suburbs of existing towns. Byzantine period settlements were located next to ‘Anjar and Aylah (and had the same name), while al-Ramlah was, to all intents and purposes, an offshoot of Ludd (Lod) on the coast of Palestine. A similar case has been made for a northern suburb being added to Tabariyah in the Early Islamic period; see: T.P. Harrison, “The Early Umayyad Settlement at Tabariyah: A Case of Yet Another *Misr*?”, *Journal of Near Eastern Studies* 51 (1992), pp. 51-59. Likewise Hishām built a new settlement next to the large and walled Byzantine site of Rusāfah, and it was given the appropriate name of *Rusāfah Hishām*.

³² ‘Anjar: Creswell rev. Allen, *A Short Account of Early Muslim Architecture* pp. 122-24; Aylah and al-Ramlah: D. Whitcomb, “The Misr of Ayla: New Evidence for the Early Islamic City”, in K. ‘Amr, F. Zayadine and M. Zaghoul eds., *Studies in the History and Archaeology of Jordan*, vol. 5 (Amman, 1995), pp. 277-88; Whitcomb, “Islam and the Socio-Cultural Transition of Palestine”, pp. 488-501, at pp. 491-92.

³³ Al-Ya‘qūbī, *Kutāb al-Buldān*, Bibliotheca Geographicorum Arabicorum vol. 7 (Leiden, 1892) pp. 116/328.9-10, 14-15.

courted compound for trade and storage (generally called, in an urban context, a *khân*), also reveals the importance of commerce in the Early Islamic period. These storehouses, dedicated to light manufacturing and exchange, became a feature of towns in Bilâd al-Shâm in middle Islamic times, but their identification in the first centuries of Islam is still in its infancy.³⁴

The presence of a *khân* at Jarash has already been alluded to, and this possibility is supported by a similar development in the urban centre of Pella, Early Islamic Fihl. In the late seventh or, more plausibly, early eighth century a new commercial centre was constructed next to the cathedral church, involving a comprehensive remodelling of space and, more significantly, a major change in civic function for the area. A paved open court on the north side of the church was converted into a large enclosed market place by the construction of perimeter rooms, porticoes and porches on two levels, very close in layout to a *khân*.³⁵ As in the case of later *khâns* animals, notably but not exclusively camels, and their keepers stayed on the ground floor,³⁶ while the rooms on the upper storey prob-

³⁴ *Khâns in Islam*: Sims, "Trade and Travel: Markets and Caravanserais", pp. 97-111 at pp. 100-101.

³⁵ R.H. Smith and L.P. Day, *Pella of the Decapolis Volume 2. Final Report on the College of Wooster Excavations in Area IX, the Civic Complex, 1979-1985* (Wooster, 1989), pp. 60-71, 90-92. However they date the erection of the complex to sometime between 614 and 635, and see it as serving an ecclesiastical rather than commercial function. See Zeyadeh, "An Archaeological Assessment of Six Cities in al-Urdun", pp. 59-61; and A.G. Walmsley, "The Social and Economic Regime at Fihl (Pella) and Neighbouring Centres, Between the 7th and 9th Centuries", in P. Canivet and J.-P. Rey-Coquais eds., *La Syrie de Byzance à l'Islam VII^e-VIII^e siècles: actes du colloque international* (Damascus, 1992), pp. 249-61 for the alternate view presented here. I am, however, now less inclined to directly link the creation of a new monumental entrance and staircase to the cathedral atrium from the west with the formation of the market to the north (see A.G. Walmsley, "Coin Frequencies in Sixth and Seventh Century Palestine and Arabia: Social and Economic Implications", *Journal of the Economic and Social History of the Orient* 42.3 (1999) pp. 326-50). Rather the expanded urban role of the zone north of the church in the late seventh or early eighth century could well explain, at least in part, the decreasing importance and eventual blocking of the western atrium entrance.

³⁶ The structure, destroyed in a single massive earthquake or two successive quakes in the mid-eighth century, contained the skeletons of seven camels, two humans, four cows, a horse and its foal. For the use of camels as pack animals in the Early Islamic period see C.J. Kraemer, *Excavations at Nessana 3. Non-Literary Papyri* (Princeton, 1958), pp. 209-11, Document 74, which is a requisition dated to c. 685 for two camels and their drovers to work the Qaysâriyah-Baysân road. The presence of cows does not necessarily preclude a primarily commercial role for the building, especially as it was mid winter when the final earthquake struck.

ably housed humans and valuable goods. The discovery of a small blacksmith's shop, reminiscent of the one found at the south tetrapylon of Jarash, indicates that light industry was also practised on the ground floor of the enclosure. Hence Fihl's new market centre performed both a commercial and an industrial function, and saw the loss of open urban space to production and trade serving at least local needs but perhaps a wider market (see further below).

Following the comprehensive destruction of Fihl by tectonic action in the mid-eighth century, considerable effort was channelled into rebuilding a replacement commercial centre for the town, the main feature of which was two large khân-like enclosures (fig. 3). Excavations in the eastern enclosure have revealed a gated entranceway, central courtyard flanked by rooms, an external staircase for access to a second level, and a large installation consisting of a series of industrial fireplaces. A considerable amount of glass was recovered during the excavations in refuse from the building, strongly indicating that the fireplace installation was created for the large scale production of glass vessels.³⁷

Caravanserais

There is convincing evidence that the Marwânid Umayyads, especially Hishâm and al-Walîd II (743-44), took a particular interest in building caravanserais, the rural corollary of the khân, in countryside Bilâd al-Shâm. While the growth in caravanseraï (and khân) numbers probably began with the extension of trade networks earlier in the eighth century, the size and number of constructs under Hishâm and al-Walîd II would suggest a deliberate policy to stimulate commerce and trade through infrastructure development. Particularly relevant are the massive, free standing caravanserais constructed at strategic locations on the main trade routes, most notably just north of Jericho (Arîhâ), at Qasr al-Hayr East and West, and Khanarah, 65 km ESE of 'Ammân.

³⁷ A.G. Walmsley, "Architecture and Artefacts from Abbasid Fihl: Implications for the Cultural History of Jordan", in M.A. Bakhit and R. Schick eds., *Proceedings of the Fifth International Conference on the History of Bilad al-Sham. Bilad al-Sham during the Abbasid Period*, English and French Section (Amman, 1991), pp. 135-59; Walmsley, "The Social and Economic Regime at Fihl (Pella) and Neighbouring Centres" pp. 249-61; glass: M. O'Hea, "The Glass Industry of the Decapolis", *ARAM 4 The Decapolis* (1992), pp. 253-64.

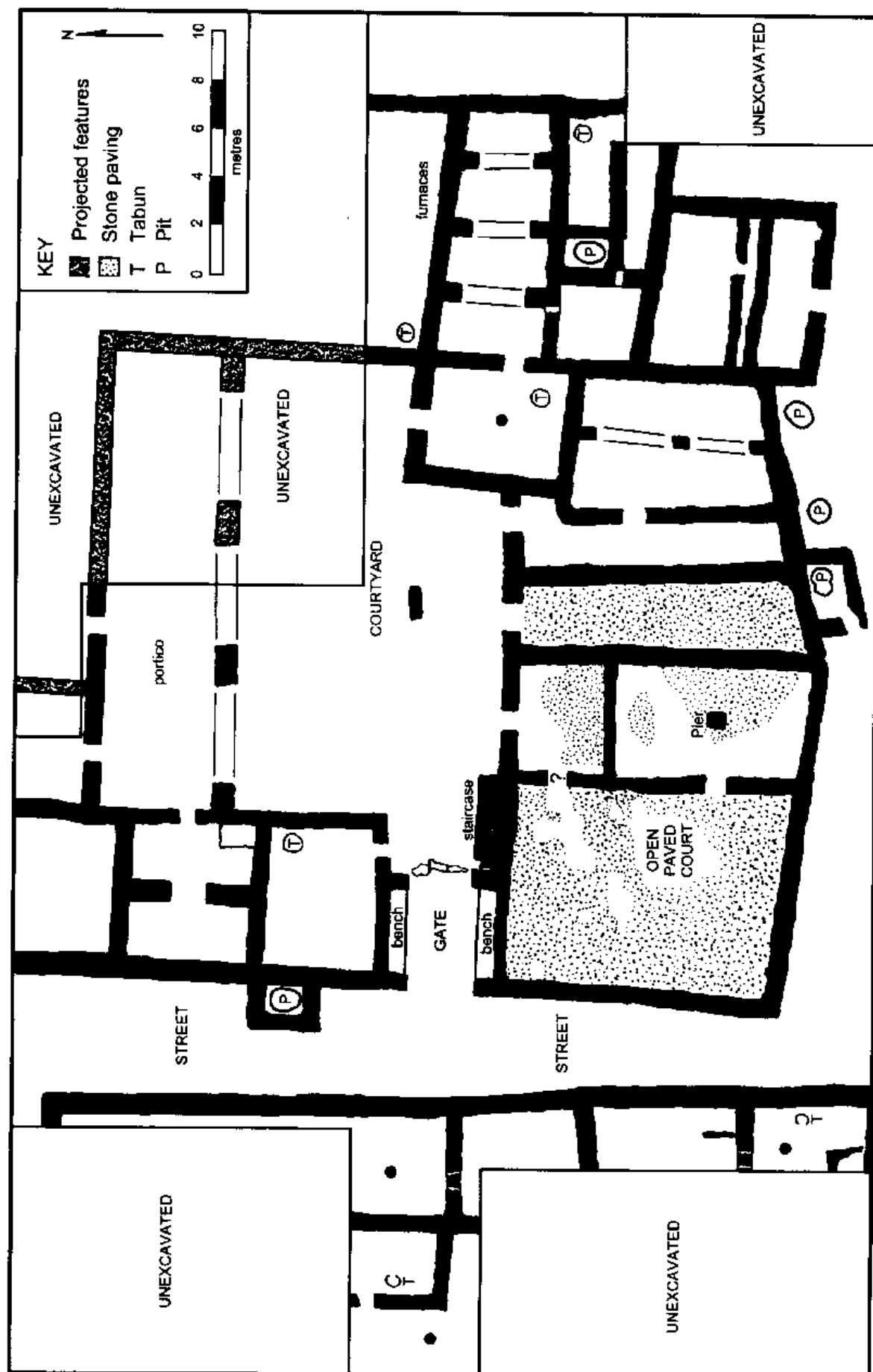


Fig. 3. Plan of the excavations at the Abbásid town centre of Fihl (mid-eighth to early tenth centuries).

The caravanserai at Jericho is located immediately north of Umayyad Khirbat al-Mafjar ("Hisham's Palace"), and although clearly an integral part of this palatial complex it has attracted little attention.³⁸ Set within a perimeter wall of approximately 73 (N-S) by 58 (E-W) m, the caravanserai was built of stone and brick, but today is poorly preserved with most walls reduced to only a few courses (pl. 2). The northern excavated half consists of a large central courtyard flanked by elongated rooms built in symmetrically planned blocks. Each room had only one doorway, which opened out onto the courtyard. Located in the courtyard were a deep stone lined cistern fed by a drain via a settling tank and, in the north-west corner, a broad staircase. Later walls were built over the courtyard, and surface pottery indicated continued occupation until at least the later ninth century. More impressive due to its better state of survival is the caravanserai at Qasr al-Hayr East.³⁹ Sitting on crossroads between Syria and al-'Irâq, the caravanserai formed an integral part of a large rural development in the *bâdiyah* (steppe lands) east of the cultivation. Other elements of the development included a large residential compound (the *madīnah*, or "city"), a seven square km agricultural enclosure and a bath. An inscription reliably attributes the construction of this complex to the caliphate of Hishâm. The caravanserai, an irregular structure measuring approximately 67 by 72 m, boasts a fine towered enclosure wall with a single, wide gateway facing west. Inside the layout shares many features with Jericho. Around a porticoed courtyard, with its drain fed cistern and two staircases, stood banks of deep, high-roofed rooms and, in the north-east and south-east corners, small living quarters identifiable by the room layout and latrines set into the external wall. At Qasr al-Hayr West, where Hishâm also built, the caravanserai is smaller, and features a porticoed central court, staircase and flanking long rooms.⁴⁰ An inscription dates the structure to 109 H. (727).

³⁸ Khirbat al-Mafjar, one of the justifiably better known Umayyad sites in Bilâd al-Shâm, was built on the northern outskirts of Jericho, an imperial domain, by al-Walid II (743-44) during the caliphate of his predecessor Hishâm; see: Creswell rev. Allen, *A Short Account of Early Muslim Architecture*, pp. 179-200; R.W. Hamilton, *Khirbat al Mafjar* (Oxford, 1959); R.W. Hamilton, *Walid and His Friends. An Umayyad Tragedy*, Oxford Studies in Islamic Art vol. 6 (Oxford, 1988).

³⁹ Creswell rev. Allen, *A Short Account of Early Muslim Architecture*, pp. 149-64; O. Grabar, *City in the Desert: Qasr al Hayr East*, Harvard Middle East Monographs vols. 23 & 24 (Cambridge, Mass., 1978).

⁴⁰ As at Qasr al-Hayr East the caravanserai is part of a much larger development,



Pl. 2. The caravanserai of Jericho (Arîhâ). General view of the surviving structure – to the left and foreground: storerooms/shops; right background: (unexcavated) section of courtyard.

Caravanserais were also built as independent structures at strategic points on major roads to encourage travel and trade, for instance the "fort" at Khan al-Tuggar on the main route between Tabariyah and al-Ramlah (for the route see below). Actually an Early Islamic caravanseraï next to springs, the courtyard building measured 71 by 63 m and featured towered walls and a gateway on the east side.⁴¹ Probably serving a similar function were the many and varied Umayyad buildings in the bâdiyah of Bilâd al-Shâm, collectively known as the *qusûr* ("castles").⁴² While built to serve more than one purpose, the *qusûr* were often conveniently located on established routes to the Arabian Peninsula and would have also facilitated travel, intentionally or not, through providing convenient stopping places in an inhospitable environment. The well-preserved walled building at Kharanah, while military in appearance, functioned primarily as a caravanseraï. Probably built under al-Walîd I, it is almost square at 36.5 by 35.45 m, with impressive towered walls and a gateway facing south. Inside numerous rooms were arranged around a small courtyard on two levels. On the ground floor, either side of the entrance passageway, two expansive halls were constructed, almost certainly stables. The Caliph al-Walîd II also appears to have paid considerable attention to improving the routes to the Hijâz, commencing large buildings at al-Mshattâ, al-Tûba and Bâ'yir. Of these, the unfinished double enclosure at Tûba looks the most likely to be a caravanseraï, especially as the complex did not include any imperial features such as a reception hall or lavish decoration (in contrast with, say, Mshattâ). Additionally Tûba's double-compound layout

for which see Creswell rev. Allen, *A Short Account of Early Muslim Architecture*, pp. 135-46; D. Schlumberger, "Les Fouilles de Qasr el Heir el Gharbi (1936-38). Rapport Préliminaire", *Syria* 20 (1939), pp. 195-238, 324-73.

⁴¹ Z. Gal, "Khan et-Tuggar. A New Look at a 'Western Survey' Entry", *Palestine Exploration Quarterly* 117 (1985), pp. 69-75.

⁴² For *qusûr* as commercial structures see especially: G. Bisheh, "Qasr Mshash and Qasr 'Ayn al-Sil: Two Umayyad Sites in Jordan", in M.A. Bakhit and R. Schick eds., *Proceedings of the Third Symposium, the Fourth International Conference on the History of Bilad al-Sham. Bilad al-Sham during the Umayyad Period*, English Section, Vol. 2 (Amman, 1989), pp. 81-103; Creswell rev. Allen, *A Short Account of Early Muslim Architecture*; G.R.D. King, "The Distribution of Sites and Routes in the Jordanian and Syrian deserts in the Early Islamic Period", *Seminar for Arabian Studies* 17 (1987), pp. 91-105; G.R.D. King, "The Umayyad Qusur and Related Settlements in Jordan", in *Proceedings of the Third Symposium, the Fourth International Conference on the History of Bilad al-Sham*, English Section, Vol. 2, pp. 71-80. It is most important not to view the *qusûr* in isolation, social or geographical.

is reminiscent of the khân-like 'Abbâsid period centre of Fihl, although the plan of the former is clearly more symmetrical.⁴³

The prominence given to urban shopping complexes, khâns for the production, storage and exchange of goods, and caravanserais to facilitate the movement of people and goods strongly indicates that commerce and the market economy experienced a strong resurgence in Bilâd al-Shâm under the Marwânid Umayyads. The caliphs, especially Hishâm and al-Walîd II, seem to have intentionally built up the infrastructure of trade with the clear purpose of encouraging the movement and exchange of goods. In the following ninth and tenth centuries, after the relocation of the imperial capital to al-'Irâq, towns came to depend increasingly on production and trade for their continued viability, once state patronage of projects ceased and government administration became centralised in the major centres.⁴⁴

Seaports and coastal towns (Fig. 1)

Written sources only briefly allude to the development of the coastal towns of Bilâd al-Shâm, especially 'Akkâ, Sûr, 'Asqalân and Atrâbulus (Tripoli in Lebanon), in the first decades after the Islamic conquest and, subsequently, under the Umayyads.⁴⁵ The sources give the impression that the sole concern of the early caliphs with the coastal towns was military and strategic, as the Mediterranean coast represented a new frontier zone created by the ongoing conflict with the Byzantines. Little interest, it would seem, was shown in the commercial expansion of harbours until the later ninth century with the advent of Ahmad ibn Tûlûn, the semi-autonomous 'Abbâsid governor of Egypt (868-884).

It is undeniable that the Islamic military provinces of Bilâd al-Shâm, the *ajnâd*, were specifically configured to provide the necessary financial and human resources to defend the coast against Byzantine

⁴³ Kharanah: S.K. Urice, *Qasr Kharana in the Transjordan* (Durham, N.C., 1987); Tuba: Creswell rev. Allen, *A Short Account of Early Muslim Architecture*, pp. 201-11.

⁴⁴ Walmsley, *The Administrative Structure and Urban Geography of the Jund of Filastin and the Jund of al-Urdunn*; A.G. Walmsley, "Fatimid, Ayyubid and Mamluk Jordan and the Crusader Interlude", in R. Adams, P. Bienkowski and B. MacDonald eds., *The Archaeology of Jordan* (Sheffield, 2000); Whitcomb, "Islam and the Socio-Cultural Transition of Palestine".

⁴⁵ For a straightforward reading of the written sources see: A. Elad (El'Ad), "The Coastal Cities of Palestine during the Early Middle Ages", in L.I. Levine ed., *Jerusalem Cathedra*, vol. 2 (Jerusalem, 1982), pp. 146-67.

raids and attempted occupation. While a mostly military function does not of necessity preclude involvement in commerce and trade, there is little evidence to assess levels of activity in the eighth century. Regrettably the comprehensive archaeological investigation of the seaports of Early Islamic Bilâd al-Shâm has barely begun, although recent excavations at Qaysâriyah, Arsûf and 'Asqalân do indicate a more detailed and complicated socio-economic role for seaports than simply military posts. However earlier work at al-Mina and Seleucea, the two ports of Antioch on the north coast of Bilâd al-Shâm, indicates that a severe reduction in size and function occurred on the north Mediterranean coast during the seventh and eighth centuries.

The compelling evidence from Arsûf, namely the market street, has already been described. The presence of a commercial avenue in Arsûf, one of the lesser important maritime towns of Early Islamic Palestine, indicates that normal urban structures were maintained and even improved in the eighth-early ninth century. Consequently, the coastal centres should be seen as more than just fortified garrisons in the Umayyad and early 'Abbâsid periods. Caesarea to the north of Arsûf, although more greatly affected by a change in circumstances,⁴⁶ similarly retained many urban features after the Islamic conquest, with evidence for more than a modicum of trade and production. Large scale excavations of the harbour and the land site of Caesarea have produced a vast body of data on the Early Islamic town, but unfortunately no real consensus has been reached on either the geographical extent or urban character of the later seventh to ninth century settlement.⁴⁷ Of major note is the remarkable but commendable "about face" by archaeologists of the Joint Expedition to Caesarea Maritima on the nature and urban impact of the Islamic

⁴⁶ Most notable was the demotion of Caesarea from the chief metropolis of Palaestina to a district centre of the Jund Filastîn, of which al-Ramlah was the new capital from the early eighth century. Also the conquest of the town was the most protracted in all Palestine, for it was not taken until c. 641 following a long siege, which gave the ruling elite plenty of opportunity to leave by sea.

⁴⁷ See the various reports in A. Raban and K.G. Holum eds., *Caesarea Maritima: a Retrospective after Two Millennia* (Leiden, 1996); R.L. Vann ed., *Caesarea Papers: Straton's Tower, Herod's Harbour, and Roman and Byzantine Caesarea* (Ann Arbor, 1992) and the illuminating survey, now a little dated, by K.G. Holum and R.L. Hohlfelder, *King Herod's Dream: Caesarea on the Sea* (New York, 1988). Numerous missions have worked at Caesarea, among which was a large tourism project that cleared a huge section along the sea front. Regrettably, publication and especially analysis has not kept up with the field programme.

conquest. Early reports spoke of a "destruction complete and irretrievable", and thereafter "among [the] ruins a few survivors attempted to clear enough space among the rubble to make life possible". Later in time "Umayyad settlers . . . [were] attracted by the wealth of building material available in the ruined city. They kept the port open for the shipment of their products".⁴⁸ Three significant points can be gleaned from the early report. Firstly, the excavators believed the Byzantine town was devastated by the Islamic conquest as evidenced, they believed, by a heavy destruction layer, and most of its population evicted. Secondly, Umayyad occupation represents the arrival of new settlers, but the quality of settlement was considerably inferior ("industrial"). Nevertheless (and lastly), the port was still used by the Umayyad settlers "for the shipment of their products". With hindsight it has now become very easy to criticise the simplistic interpretations offered by archaeologists working on major urban sites in the late 1970s (nearly all of whom came from a Classical or Biblical background with no professional knowledge of early Islam), but unusually the correction to the Caesarea sequence came from archaeologists working within the Joint Expedition, notably Kenneth Holum and especially Chérie Lenzen.⁴⁹ Discarded are the early seventh century destructions; in their place has emerged a more historically agreeable image of no significant disruptions to urban life at the time of the Islamic conquest. Understandably Islamic Caesarea (Qaysâriyah) was smaller than its Late Antique predecessor in keeping with its

⁴⁸ L.E. Toombs, "The Stratigraphy of Caesarea Maritima", in R. Moorey and P. Parr eds., *Archaeology in the Levant* (Warminster, 1978), pp. 223-232; see also R.C. Wiemken and K.G. Holum, "The Joint Expedition to Caesarea Maritima. Eighth Season 1979", *Bulletin of the American Schools of Oriental Research* 224 (1981), pp. 27-52, who speak of a destruction layer resulting from a "Muslim sack" of the city.

⁴⁹ Holum and Hohlfelder, *King Herod's Dream*, which contains a still overly dramatic interpretation of early seventh century changes, for instance "the victorious Muslims very likely craved revenge and therefore unleashed special fury against Caesarea" – a jaundiced view at odds with just about all reliable literary and archaeological evidence. Considerably more balanced is a later paper by Holum, "Archaeological Evidence for the Fall of Byzantine Caesarea" which expressly rejects a Sassanid and Muslim destruction of Caesarea and offers changes in the socio-economic fabric of the town after the conquest as reasons for its contraction. Unfortunately the first comment was in a popular book; the second interpretation only appeared in a learned journal. Holum (in note 2 of the paper) acknowledges the importance and considerable contribution of a doctoral thesis by C. Lenzen, *Byzantine/Islamic Occupation at Caesarea Maritima as Evidenced through the Pottery* (Ph.D. thesis, Drew University, 1983), an essential work which laid the groundwork for the more reasoned consideration of Late Antique and Early Islamic Caesarea.

reduced political and economic status, but even so the extent of its geographical contraction is disputable.⁵⁰ As Lenzen demonstrated as early as 1983, the stratigraphy and pottery from Caesarea shows a clear continuity of occupation from the Byzantine to Fâtimid periods, with evidence for urban reconstruction under 'Abd al-Malik. After the Islamic conquest the town's orientation turned towards the sea at the expense of the Byzantine street grid, a sure indication that the harbour continued to play a significant role in the life of Qaysâriyah. Located next to the harbour was a major public facility, comprising a paved court in front of vaults (cf. Bayt Râs), probably a market dating to the Byzantine period. A polygonal building was added in the Umayyad period, and the complex retained this new configuration until the tenth century. At some point the Early Islamic settlement was walled, perhaps more than once as the walls identified as Islamic, which enclose an area equivalent to the Crusader settlement, represent the fortified central town (fortified nucleus?) of Tûlûnid and Fâtimid times and hence, perhaps, not the full extent of the Umayyad and early 'Abbâsid town.⁵¹

While Caesarea seemingly experienced a cognisable diminution in status and size after the Islamic conquest—but even then was amply populated and equipped—other ports on the east Mediterranean littoral of Palestine and Lebanon were not as severely effected. After, it would appear, only a short period of adjustment a line of coastal sites led by 'Asqalân, 'Akkâ, Sûr and Atrâbulus grew into maritime centres of some note. Realising the importance of the coastal sites

⁵⁰ Quite possibly the absolute settlement size of Byzantine Caesarea has been exaggerated, as almost certainly not all of the land within the circumference wall was built up, while equally Islamic Qaysâriyah could have been underestimated, as suburbs may have existed outside of the Tûlûnid and 'Abbâsid town wall. In any case, the value of such comparisons, based on ill-defined absolutes, is highly suspect.

⁵¹ Lenzen, *Byzantine/Islamic Occupation at Caesarea Maritima as Evidenced through the Pottery*, pp. 120-94, 423-15; L.I. Levine and E. Netzer, *Excavations at Caesarea Maritima 1975, 1976, 1979 – final report*, Qedem vol. 21 (Jerusalem, 1986), pp. 64-65, 184-86, where the reorientation of the town towards the sea is quite marked; also Holum and Hohlfelder, *King Herod's Dream*, pp. 208-11; Holum, "Archaeological Evidence for the Fall of Byzantine Caesarea". For the continued functioning of the harbour in the ninth century see Raban and Holum eds., *Caesarea Maritima*, pp. 664-66. In the tenth century a ship from Egypt put in at Qaysâriyah due to inclement weather, which suggests that the harbour still afforded a level of protection worth seeking (S. Goitein, *A Mediterranean Society: The Jewish Communities of the Arab World as Portrayed in the Documents of the Cairo Geniza. Volume 1: Economic Foundations*, (Berkeley, 1967), p. 321).

the Umayyads, especially Mu'âwiyah (first as governor of Bilâd al-Shâm and then caliph), 'Abd al-Malik and Hishâm, developed their urban infrastructure and settled migrants from other regions. The stationing of the Umayyad navy and its workshops in 'Akkâ and, later, Sûr would have brought particular benefits to these towns. The extent of depopulation of the coastal towns seemingly varied from place to place, as one source talks of "many Greeks" remaining in Sûr.⁵² The settlement of new migrants in the coastal towns may have been desirable partly to replace people who had left and partly to counterbalance to the number of "Greeks" that remained. The importance of this strategy was reinforced following rebellions and the temporary occupation by the Byzantines of a number of major coastal towns, including 'Asqalân and Atrâbulus. On another occasion a "Greek patrician (re?)settled in Atrâbulus during the caliphate of 'Abd al-Malik, but revolted two years later and after killing the governor fled (back?) to Byzantium". Later he was captured travelling with many ships to a "Muslim coast town", and executed.⁵³ Interestingly his movements sound very much like those of a trader between Byzantium and the Muslim coast of al-Shâm.

Antioch, the urban "basket case" of the Late Antique East, similarly shows modest continuity in the Early Islamic period, especially in its commercial heart. Antioch's well documented decline began in the century before the Islamic conquest, when the town suffered from a series of calamitous events including earthquakes, fire, plague and conquest.⁵⁴ Hence its significance, like its size, was much reduced by the time of the Islamic conquest. Under Islamic hegemony (the town was retaken by the Byzantines in 969), Antioch was assigned a minor political and military role, yet excavations along the main

⁵² Al-Baladhuri, *The Origins of the Islamic State*, p. 180. "Hishâm ibn al-Laith from our *sheikhs* who said, 'When we took up our abode in Tyre and the littoral, there were Arab troops and many Greeks already there. Later, people from other regions came and settled with us, and that was the case with all the sea-coast of Syria.'" See also p. 196, where Muslims are settled in conquered towns to prevent revolt. Also to be taken into account is the state of the coastal towns before the Islamic conquest; Kennedy ("The Last Century of Byzantine Syria" pp. 147-48, 156, 168-69, 180-82) argues for a significant reduction in urban life and prosperity at the end of the sixth century. If so, the extent of any improvement in the seventh and especially eighth century is even more significant.

⁵³ Al-Baladhuri, *The Origins of the Islamic State*, p. 195.

⁵⁴ See especially: Kennedy, "The Last Century of Byzantine Syria"; Kennedy, "Antioch: from Byzantium to Islam and back again"; Foss, "Syria in Transition, A.D. 550-750" at pp. 190-97.

colonnaded street revealed a significant level of urban continuity until about 800. Thereafter the urban area of Antioch contracted considerably. "After the disasters of the second half of the sixth century" Kennedy writes, "Antioch survived and thrived. It is true that it was much smaller than the classical city at its zenith . . . There is also evidence that, while the Early Islamic period was one of modest rebuilding along the main streets, the ninth and especially tenth centuries represented the nadir of the city's fortunes".⁵⁵ The very fragmentary nature of the archaeological evidence from Antioch makes it impossible to understand the economic background to this urban history, but it is no coincidence that the decline of the town coincided with the powerful ascendancy of Aleppo into the new political and commercial hub of north Syria.

Excavations at al-Mina, the natural harbour of Antioch some 20 km downstream at the mouth of the Orontes, and Seleucea, Antioch's second (but artificial) harbour to the north, present a less positive view of economic continuity.⁵⁶ Seleucea, the principal port of Antioch in Classical times, underwent a "gradual and peaceful" decline in the latter half of the sixth century, becoming "effectively depopulated before the Arab conquests". Similarly, the perceived absence of seventh and eighth century material at al-Mina was taken to mean the port was abandoned, and only reoccupied with the expansion of land trade to the east in the mid-ninth century. By the tenth century, the site had regained importance and the presence of imported glazed ceramics reveals extensive trade with Mesopotamia. However considering the age of the excavations, the limited area opened up, the scanty nature of the relevant deposits, and the brevity of the reports, the seventh and eighth century hiatus is certainly not proven. A more plausible scenario for al-Mina is the continued utilisation of the Byzantine structures until the mid-ninth century, at which time the economic revival of the north Mediterranean coast promoted a substantial rebuilding of the port.

The significance of maritime trade to the economy of Early Islamic Bilâd al-Shâm is graphically demonstrated by the foundation of a new seaside settlement at Aylah (al-'Aqabah) at the head of the Gulf of 'Aqabah on the Red Sea. Built adjacent to the Roman-Byzantine

⁵⁵ Kennedy, "Antioch: from Byzantium to Islam and back again", p. 195.

⁵⁶ Al-Mina: A. Lane, *Medieval Finds at Al Mina in North Syria* (Oxford, 1938); Seleucea: Kennedy, "The Last Century of Byzantine Syria", pp. 154-55.

township on empty land between the town and the coastline, Aylah rapidly became an active party in the Red Sea and Indian Ocean trade.⁵⁷ Commerce was also encouraged by the passage of the annual Pilgrims' Caravan from Egypt to the Hijâz. According to the site's excavator, Donald Whitcomb, Aylah could have been founded as early as the caliphate of 'Uthman (644-656). However this early date has not been generally accepted, and the architectural traditions and pro-expansion economic policies of the Marwânid period suggests that the early eighth century is a much more plausible date for Aylah's foundation. The new town was rectangular in plan, and delineated by hefty circuit walls measuring 170 by 140 m (fig. 4). The walls were symmetrical, with towers and a centrally located gateway in each wall. The gates were joined by axial streets lined with shops, and at the intersection of the streets stood a tetrapylon, as at 'Anjar. By the early 'Abbâsid period (750-850) Aylah was a prosperous port. Excavations at different locations within and outside of the walls have shown that during this century many existing buildings were refurbished and new structures built. Notably Aylah's congregational mosque was enlarged, forcing a western deflection of the north-south axial street, and a new beach side sùq constructed along the outside face of the town's south wall. In addition the neighbouring Roman-Byzantine town continued to be occupied and refurbished throughout the early 'Abbâsid period. Not until the tenth century was the earlier town substantially deserted, which coincides with the widespread use of church *spolia* within walled Aylah.

The port of Aylah is an early manifestation of the major role of Indian Ocean trade in the economy of the Middle Islamic world. The town flourished in the eighth and ninth centuries, but thereafter suffered a series of major setbacks. Particularly damaging was the political fragmentation of Bilâd al-Shâm from the tenth century, a series of natural calamities, and the increasing domination of the Indian Ocean trade by al-'Irâq and Egypt. The construction of large and wealthy imperial cities in al-'Irâq, notably Baghdâd, the

⁵⁷ For 'Abbâsid Aylah see especially: D.S. Whitcomb, *Ayla: Art and History in the Islamic port of Aqaba* (Chicago, 1994); Whitcomb, "The Misr of Ayla"; D.S. Whitcomb, "A Street and the Beach at Ayla: the Fall Season of Excavations at 'Aqaba, 1992", *Annual of the Department of Antiquities of Jordan* 39 (1995), pp. 499-507; and for Indian Ocean trade generally see: K.N. Chaudhuri, *Asia before Europe: Economy and Civilisation in the Indian Ocean from the Rise of Islam to 1750* (Cambridge, 1990); G.F. Hourani, *Ancient Seafaring in the Indian Ocean in Ancient and Early Medieval Times* (Beirut, 1963).

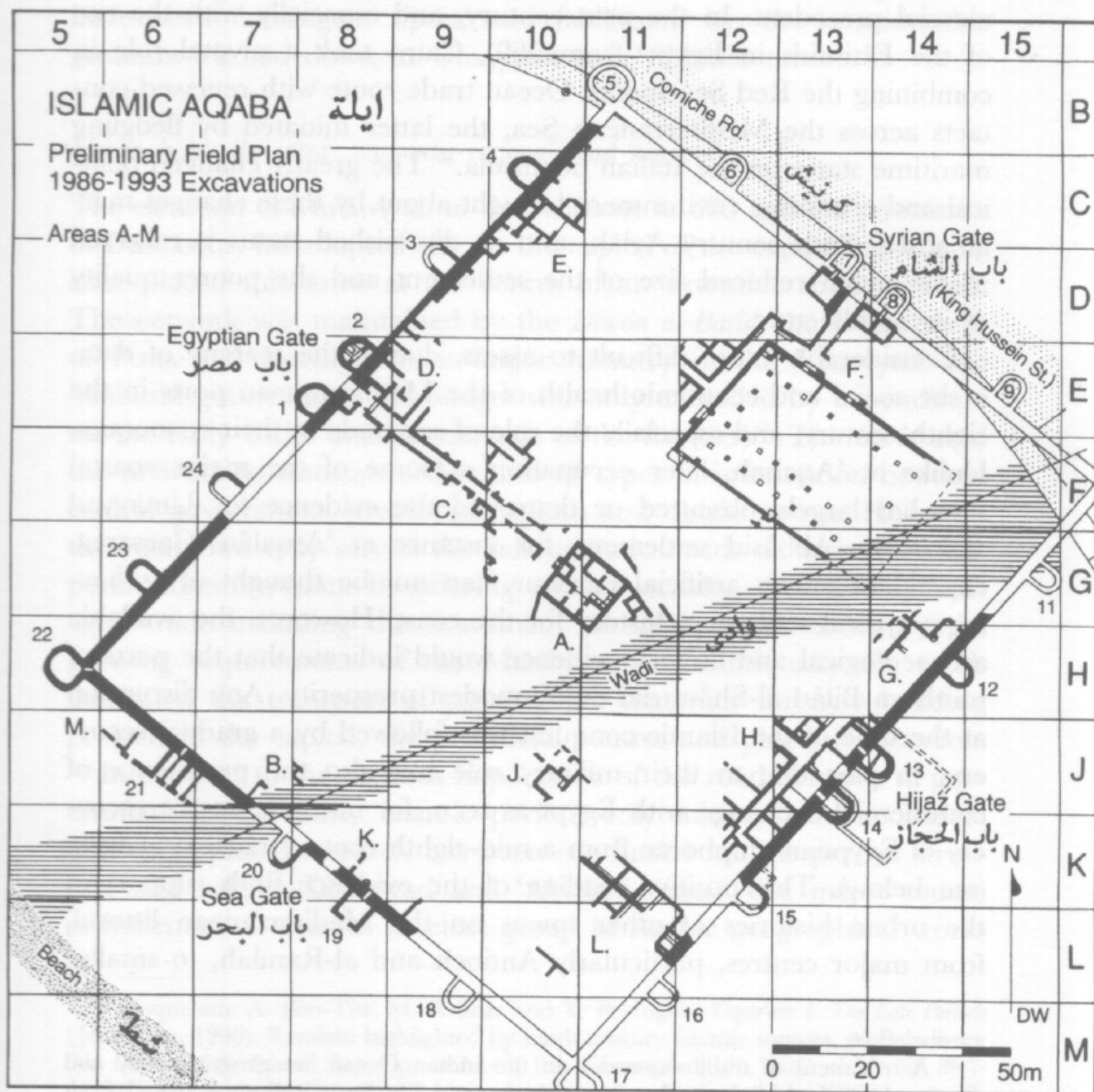


Fig. 4. Plan of Early Islamic Aylah (from D.S. Whitcomb, *Ayla: art and history in the Islamic port of Aqaba* (Chicago, 1994), p. 11).

regularisation of routes along the Euphrates valley to the Mediterranean, and the forging of direct sea routes through the Arabian Gulf to China and East Africa under Hârûn al-Rashîd (786-809) created a vibrant long distance trade network without geographical or commercial precedent. In the next century, and especially with the rise of the Fâtimids in Egypt (from 969), Cairo took a pivotal role in combining the Red Sea-Indian Ocean trade route with renewed contacts across the Mediterranean Sea, the latter initiated by fledgling maritime states on the Italian peninsula.⁵⁸ The greatly changed political and economic environment brought about by these changes marginalised tenth century Aylah, and its diminished status is reflected in the much reduced size of the settlement and the poorer quality of its architecture.

Considerably more difficult to assess, due to the scarcity of data, is the social and economic health of the Mediterranean ports in the eighth century, and especially the role of sea trade in their economies. Unlike at 'Aqabah, later occupation at some of the major coastal sites has largely obscured or destroyed the evidence for Umayyad and early 'Abbâsîd settlement, for instance at 'Asqalân. Caesarea, dependent on an artificial harbour, can not be thought of as having a typical settlement history for the coast. However, the available archaeological and literary evidence would indicate that the ports of southern Bilâd al-Shâm did enjoy modest prosperity. Any disruption at the time of the Islamic conquest was followed by a gradual recovery, in part due to their military role but also the persistence of commercial exchange with Egypt as seen, for instance, in the recovery of Egyptian amphorae from a mid-eighth century context at Pella (see below). This positive reading of the evidence finds support in the urban histories of other towns on the Mediterranean littoral, from major centres, particularly Antioch and al-Ramlah, to smaller

⁵⁸ A treatment of trade expansion in the Indian Ocean lies geographically and mostly chronologically outside of this paper, and has been well summarised from an archaeological perspective in R. Hodges and D. Whitehouse, *Mohammed, Charlemagne & the Origins of Europe* (London, 1989). Hodges and Whitehouse place particular emphasis on establishing the date of direct contact with south China as revealed by the excavations at the trading port of Sîrâf on the Iranian coast of the Arabian Gulf. For a numismatic perspective on Sîrâf, particularly during its heyday in the tenth century, see N.M. Lowick, "Trade Patterns on the Persian Gulf in the Light of Recent Coin Evidence", in D.K. Kouymjian ed., *Near Eastern Numismatics, Iconography, Epigraphy and History. Studies in Honor of George C. Miles* (Beirut, 1974), pp. 319-333.

sites such as Tell Qaymun (Yoque'am) and Tell Michal.⁵⁹ If, as it is suggested here, the Mediterranean ports did post modest gains in the eighth century, then the well documented improvements made by the Tûlûnid (late ninth century) and Fâtimid rulers of Egypt would have been contingent upon, and facilitated by, the considerable groundwork laid down in Umayyad and 'Abbâsid times.

Urban links: the intra- and inter-regional road network

The elevation of Mu'âwiyah to the caliphate in 660 and the promotion of Damascus, his adopted city, as the capital of the expanding Islamic state placed this town at the centre of an extensive road network. The network was maintained by the *Dîwân al-Barîd*, the Department of Posts and Intelligence, a major ministry in the Umayyad and 'Abbâsid governments (its budget was only exceeded by expenditure on the Holy Cities and the defence of the frontier).⁶⁰ The *Barîd* used the network to transmit orders and all types of information between central government, provincial capitals and district towns. However, the roads not only served the bureaucratic needs of a growing imperial administration. By offering greater security, they also encouraged trade including the movement of luxury items to satisfy the growing requirements of the Muslim elite. Additionally the roads facilitated the transport of construction materials for new building projects in the capital, the provincial centres and places in between.

In contrast to the obvious importance of the road network to government in the Early Islamic period, only minimal archaeological and epigraphical research has been conducted into its precise structure and role in Umayyad and 'Abbâsid times. The major source of information remains a select group of Arabic geographical works

⁵⁹ Yoque'am: A. Ben-Tor, M. Avissar and Y. Portugali, *Yoque'am I. The Late Periods* (Jerusalem, 1996). Ramlah: highlighted by ninth century Islamic sources, Al-Baladhuri, *The Origins of the Islamic State*, pp. 143-144; Ibn Khurradadhbih, *Kitâb al-Masâlik wa'l-Mamâlik*, Bibliotheca Geographorum Arabicorum vol. 6 (Leiden, 1889), pp. 78-79, 117; al-Ya'qûbî, *Kitâb al-Buldân*, pp. 116, 328; Qudâmah, *Kitâb al-Kharâj*, Bibliotheca Geographorum Arabicorum vol. 6 (Leiden, 1889), pp. 219, 228; selected archaeological works: M. Rosen-Ayalon and A. Eitan, *Ramla Excavations. Finds from the VIIIth Century C.E.* (Jerusalem, 1969); M. Sharon, "Waqf inscription from Ramla c. 300/912-13", *Bulletin of the School of Oriental and African Studies* 60 (1997), pp. 100-108; Whitcomb "The Misr of Ayla", pp. 281-83.

⁶⁰ Briefly see: Hitti, *History of the Arabs*, 322-25, with map; D. Sourdel, "Barid", *Encyclopaedia of Islam, New Ed.*, vol. 1 (Leiden, 1960), pp. 1045-46.

dating to the ninth and tenth century, but these provide only a basic skeleton of major routes. Mostly the geographers described the road system as it functioned in the early 'Abbâsid caliphate, and only occasionally were features of the Umayyad structure described. Further details about selected routes belonging to the Umayyad road system have been preserved in the occasional epigraphic source, specifically milestones. Taken together the sources communicate the existence of three primary highways supplemented by numerous secondary routes, and reveal a road network firmly focused on the major towns of Bilâd al-Shâm.

a. *The great Post Road* (Tariq al-Barîd)

The great "Post Road" was the major highway of Bilâd al-Shâm, transversing the region from north-east to south-west. Although the focus of the road changed with the overthrow of the Umayyads and the transfer of the Islamic capital from Damascus to al-'Irâq, the importance of this interregional highway was undiminished in the second half of the eighth century.

From Damascus the post road crossed the provinces of al-Urdunn and Filastîn, passing through their capitals of Tabariyah and al-Ramlah respectively, before following the Mediterranean coast to reach Egypt and its capital of al-Fustât. The way station at Khan al-Tuggar, built between Tabariyah and al-Lajjûn (Legio, a former Roman legionary camp) in the Esdraelon Plain (the *Marj ibn 'Amir*), would have been one of many that dotted the post road. Twelve stations are indicated between Tabariyah and al-Ramlah, with an average distance between each of nearly ten km. Northwards from Damascus the road passed through Hims and Qinnasrîn, both capitals of provinces with the same names, before continuing to al-Raqqah, capital of the Jazîrah (north-west Mesopotamia), and then al-'Irâq. In the 'Abbâsid period, following the foundation of Baghdâd, the post road through Bilâd al-Shâm remained important, as it linked the new Islamic capital and al-Raqqah to al-Fustât, one of the major regional capitals of the Empire. The written sources mostly refer to this structure, when the road also passed through Aleppo, which took shape during the second quarter of the eighth century.

b. *The coastal route*

The major Mediterranean coast road of Classical times that linked Antioch with Alexandria, the two great cities of the Hellenistic east,

was replicated in part during the Early Islamic period although its standing, which waned with the falling fortunes of both centres, was secondary to the *Tarîq al-Barîd*. Nevertheless the government administrator and geographer Ibn Khurdâdhbih (d. 913) paid particular attention to this route.⁶¹ His interest can be attributed to the speedy promotion of al-Raqqah, strategically located on the Euphrates River in the Jazîrah, by the early 'Abbâsîd caliphs. In 771-72, the Caliph al-Mansûr (d. 775) began a new suburb for the town named al-Râfiqa (the "companion"), while Hârûn al-Rashîd (d. 809), who resided in al-Raqqah between 796 and 808, further enlarged it by constructing ten square kilometres of palaces.⁶² By the early ninth century only Baghdâd was larger than al-Raqqah/Râfiqa, and like Baghdâd the influx of state funding created an economic powerhouse of centralised production, consumption and commerce, the benefits of which radiated throughout the region (see further below).

Returning to the coast road, beginning in al-Raqqah the road headed westwards to the Mediterranean coast, passing through Aleppo on the way. Thereafter the route followed the coast down to Atrâbulus, Bayrût, Saydâ (Sidon), Sûr (Tyre) 'Akkâ, Qaysâriyah, Arsûf, 'Asqalân and Ghazzah. The route was especially significant as it linked each of the major coastal ports with its neighbour, and served not only administrative and military functions but also supported commercial exchange.

c. Roads from Damascus to Makkah

From the earliest days, the road from Damascus to Makkah was critical to the Islamic State for it connected Madinah, home of the Orthodox caliphs (until 656), with Damascus, capital of Bilâd al-Shâm. The prominence of the route was enhanced by the religious role it served. Each year Muslim faithful would travel from Damascus and Jerusalem via 'Ammân to the Hijâz on the pilgrimage (*Hajj*), which is obligatory for all adult Muslims of sound health and sufficient

⁶¹ Ibn Khurradadhbih, *al-Masâlik*, pp. 97-98, 71. For the fading fortunes of Antioch see above, while for Alexandria see the recent and valuable study by A.L. Udovitch, "Medieval Alexandria: Some Evidence from the Cairo Genizah Documents", *Alexandria and Alexandrianism*, J. Paul Getty Museum (Malibu, Ca, 1996), pp. 273-84.

⁶² Creswell rev. Allen, *A Short Account of Early Muslim Architecture*, 243-48, 270-75; M. Meinecke, "Raqqah on the Euphrates: Recent Excavations at the Residence of Harun er-Rashid", *The Near East in Antiquity* 2 (1991), pp. 17-32; M. Meinecke, "al-Rakka", *Encyclopaedia of Islam, New Ed.*, vol. 8 (Leiden, 1995), pp. 410-14.

means. Thus the *Darb al-Hajj* served both a religious and an administrative function. Under the Umayyads, with Damascus as the capital of the Islamic empire, the road took on a major administrative role, with three alternate routes to the Hijâz south of 'Ammân.⁶³ Its commercial functions are, however, unrecorded, but considering the great wealth that flowed to Makkah and Madinah in the form of generous state pensions the route probably carried large amounts of basic and luxury goods. This trade must, in part, have been a major factor behind the considerable prosperity witnessed in the 'Ammân district (the Balqâ') during the Early Islamic period, especially the eighth century.⁶⁴

d. Regional routes

Trade and the presence of local markets would apparently explain the inclusion of some regional roads, but not others, of Bilâd al-Shâm in the geographical sources. The roads emanating from Zughar, located south of the Dead Sea, is an interesting and informative example. Zughar, Byzantine Zoara, was a busy market town and renowned for its dates and indigo.⁶⁵ From Aylah a road headed northwards along the desolate Wâdî 'Arabah (a journey of about 4 days, with conveniently placed water sources on the way), and after

⁶³ Qur'ân 2.196, 3.97. For an analysis of the route, see A. Musil, *The Northern Hegaz. A Topographical Itinerary*, Oriental Explorations and Studies vol. 1 (New York, 1926); A. Musil, *Arabia Deserta*, Oriental Explorations and Studies vol. 2 (New York, 1927); G.R.D. King, "The Distribution of Sites and Routes in the Jordanian and Syrian deserts in the Early Islamic Period", *Seminar for Arabian Studies* 17 (1987), pp. 91-105 for the three routes south of 'Ammân.

⁶⁴ The archaeological evidence, from isolated monuments and farmsteads to large urban centres, is prolific. See, for a small sample, Creswell rev. Allen, *A Short Account of Early Muslim Architecture* (the *qusûr*); King, "The Umayyad Qusur and Related Settlements in Jordan"; MacAdam, "Settlements and Settlement Patterns in Northern and Central Transjordan, ca 550-ca 750"; A. Northedge, *Studies on Roman and Islamic 'Amman. The Excavations of Mrs C-M Bennett and Other Investigations* (Oxford, 1992); M. Piccirillo, "The Activity of the Mosaicists of the Diocese of Madaba at the time of Bishop Sergius in the Second Half of the Sixth Century A.D.", in K. 'Amr, F. Zayadine and M. Zaghloul eds., *Studies in the History and Archaeology of Jordan*, vol. 5 (Amman, 1995), pp. 391-98; R. Schick, "Palestine in the Early Islamic Period".

⁶⁵ The markets and the cultivation of dates and indigo are mentioned by the tenth century geographers, but clearly these activities are much earlier in date; in the Madaba Mosaic Zughar is depicted as a walled settlement with date palms. See the descriptions in Ibn Hawqal, *Configuration de la Terre (Kitab Surat al-Ard)*, trans. J.H. Kramers and G. Wiet (Paris/Beyrouth, 1964); al-Muqaddasî (al-Maqdisî), *The Best Divisions for the Knowledge of the Regions (Ahsan al-Ta'asim fi Ma'rifat al-Aqalim)*, trans. B. Collins and M. al-Tai (Reading, 1994), p. 161, who describes Zughar as "little Basra".

reaching Zughar separated into three main branches. Two climbed out of the Jordan Rift Valley, one north-westwards towards Habrâ (Hebron) and Jerusalem, the other north-eastwards to 'Ammân and Damascus. The third stayed in the valley and passed along the western shore of the Dead Sea to Jericho (equipped with a khân, above) and Nâbulus. A fourth route, also to the eastern Highlands, struck south-eastwards to Adhruh and the Pilgrims' road. The three northern routes linked Jerusalem, Nâbulus and Damascus with the commodity markets of Aylah and Zughar, and accordingly would have fulfilled a primarily commercial function.

Although other regional routes were seemingly more diverse in their function, they nevertheless would have promoted commodity trading and the movement of merchants. The elevation of Jerusalem as a political and religious centre offers a clear example. The first Umayyad caliph, al-Mu'âwiyah, perhaps intended to make Jerusalem his capital; certainly he was crowned there. The construction of the Dome of the Rock and the al-'Aqsâ mosque (first phase) by 'Abd al-Malik on the former site of the Jewish temple (the *Haram al-Sharîf*) was accompanied by an upgrade to roads from Damascus and Ludd, Filastîn's capital before al-Ramlah. Milestones were erected in 705 to commemorate work at 'Afiq (the pass into the Jordan Valley east of Lake Tiberias), on the Jericho-Jerusalem road and the al-Ramlah-Jerusalem road. Under al-Walîd I a massive palatial complex was erected south of the Haram. Throughout the Early Islamic period (and, of course, until this day) individuals travelled to Jerusalem to pray at its holy places, especially on the Haram. Prospective pilgrims, both local and from outside Bilâd al-Shâm, could prepare themselves for the *hajj* while residing there. The result was a vibrant and cosmopolitan town with, undoubtedly, markets and a demand for traded goods to match.⁶⁶

⁶⁶ On the status of Jerusalem, see A. Elad, *Medieval Jerusalem and Islamic Worship. Holy Places, Ceremonies, Pilgrimage* (Leiden, 1995); on the monuments Creswell rev. Allen, *A Short Account of Early Muslim Architecture*, pp. 18-42, 73-82, and Elad *Medieval Jerusalem and Islamic Worship*; on the milestones, recently: A. Elad, "The Southern Golan in the Early Muslim Period. The Significance of Two Newly Discovered Milestones of 'Abd al-Malik", *Der Islam* 76 (1999), pp. 33-88.

The urban environment and road networks: an impetus to trade

The archaeological and written sources demonstrate conclusively that an infrastructure conducive to trade—large, well organised and numerous towns and an efficient communications network—existed throughout Bilâd al-Shâm from the later seventh and into the eighth century. During this period, the region was part of an extensive Islamic empire possessing a common currency and language. Policy decisions by the ruling elite actively promoted the market economy, as demonstrated by the construction of new shop-lined streets, the expansion of existing markets, and the construction of khâns and caravanserais. Neither was the upkeep of seaports neglected. At least a modest level of activity can be argued for the harbours and coastal towns of the Mediterranean, although only for the Red Sea port of Aylah does the eighth century appear vibrant and expansionary with trade as the primary catalyst.

In practical terms, the movement of merchants with their merchandise between towns and regions was greatly assisted by the presence of a developed road network. A good example of merchants travelling along established routes is preserved in the geographical work of Ibn Khurdâdhbih. Although the use of the state-maintained Barîd network was generally restricted to official business, Ibn Khurdâdhbih recounts how the post-road route through Bilâd al-Shâm was used by multilingual Slav merchants while journeying to the Far East from North Africa.⁶⁷ After leaving al-Fustât the merchants followed the route to al-Ramlah and Damascus before continuing to al-‘Irâq. The post road and subsidiary routes clearly offered a convenient travel network for the merchants. Not only did it directly link the major market towns of the Empire; the network also offered a safer and more economical way between the main centres of population.

The infrastructure of commerce and exchange was a standard feature of the urban character of eighth century Bilâd al-Shâm. The archaeological evidence would strongly indicate that many towns were equipped with markets, and these were economically linked by an elaborate road network. Major highways connected Bilâd al-Shâm with Egypt and al-‘Irâq, greatly facilitating the potential for trade. As these roads, in part, served an official function, their upkeep and security was ensured by the Islamic State. It can be argued that

⁶⁷ Ibn Khurradadhbih, *al-Masâlik*, pp. 154-55.

the continuing urban viability of a town in Bilâd al-Shâm after the mid-eighth century had much to do with the strength of its market economy, enhanced in some centres (e.g. Jerusalem, Hebron) by the growth of religious pilgrimage. Another crucial and related factor was a veritable explosion in urban-based manufacturing industries and developments in the rural economy, issues to which we can now turn.

3. Towns, the rural hinterland and the production of tradable goods: the objects of trade

Urban industry

The economies of many towns in Early Islamic Bilâd al-Shâm became increasingly focused on the manufacture of tradable commodities, especially in the eighth century. Often the impact of this industrialisation on the urban environment was considerable, especially in smaller towns. Industrial complexes, large and small in scale, were commonly inserted into the existing infrastructure, often at the expense of public space (footpaths, streets and plazas) and by commandeering defunct civic monuments (from the compounds of pagan temples to bathhouses). Most of these new industries were primarily localised in their outlook and, almost exclusively, only utilised the limited range of primary materials procurable in the immediate district. However, with the main centres, such as al-Raqqah, the separation of domestic and industrial activities was ensured by the construction of independent manufacturing quarters, which placed potentially dangerous and often polluting industries outside and upwind of the town. The archaeological evidence for industry, which predominantly comes from a greater concentration of excavations in south Bilâd al-Shâm, obviously favours those enterprises that left tangible and legible remains, for example pottery manufacture, glass working, fabric and metal working.

Excavations at Baysân have uncovered particularly explicit evidence of an influx of industrial activities into the heart of the Classical town.⁶⁸ Prevalent were installations for the production of pottery.

⁶⁸ See the earlier discussion on "Market Streets and the *Sûq* Question" (above), and R. Bar-Nathan and G. Mazar, "City Center (South) and Tel Iztabba Area; Excavations of the Antiquities Authority Expedition", *Excavations and Surveys in Israel*

Preparation areas, a storeroom and ten updraft kilns were uncovered within and in front of the defunct Roman theatre. A network of pipes and channels provided water to the factory, which produced a large range of domestic vessels and lamps. Two kilns were found with their contents intact, and great quantities of wasters, lamp moulds and unbaked pottery were recovered. This was not the only potting installation in Baysân. A large building and additional kilns were found within the compound of the former "Byzantine agora", kilns were also found inside the amphitheatre to the south, and elsewhere. Ceramic production was also practised at Jarash on a commercial scale.⁶⁹ For instance major potting complexes dating to the Umayyad period were excavated in and around the deserted North Theatre and in the forecourt of the Temple of Artemis. Later, in the 'Abbâsid period (ninth century), three kilns producing cooking pots, moulded lamps, "cut ware" bowls and red painted bowls and cups were inserted into an abandoned Umayyad period house on the western arm of the south decumanus. Earlier in date, and intended to produce a very different product, were the kilns of an industrial complex excavated at Aylah.⁷⁰ Wasters recovered around the kilns

11: *The Bet She'an Excavation Project (1989-1991)* (Jerusalem, 1993), pp. 33-51; G. Foerster and Y. Tsafir, "City Center (North)"; Y. Tsafir and G. Foerster, "From Scythopolis to Baysân - changing concepts of Urbanism", in G.R.D. King and A. Cameron eds., *The Byzantine and Early Islamic Near East 2. Land Use and Settlement Patterns* (Princeton, 1994), pp. 95-115; Tsafir and Foerster, "Urbanism at Scythopolis-Bet Shean in the Fourth to Seventh Centuries".

⁶⁹ See especially W. Ball, J. Bowsher, I. Kehrberg, A. Walmsley and P. Watson, "The North Decumanus and North Tetrastyle at Jarash: An Archaeological and Architectural Report", in F. Zayadine ed., *Jerash Archaeological Project 1, 1981-1983* (Amman, 1986), pp. 351-409; M. Gawlikowski, "A Residential Area by the South Decumanus", in *Jerash Archaeological Project 1, 1981-1983*, pp. 107-136; M. Gawlikowski, "Céramiques byzantines et omayyades de Jarash", in H. Meyza and J. Mlynarczyk eds., *Hellenistic and Roman Pottery in the Eastern Mediterranean - Advances in Scientific Studies. Acts of the II Nieborów pottery workshop* (Nieborów, 1995), pp. 83-86; M. Gawlikowski, "Arab Lamp-makers in Jarash: Christian and Muslim", in K. 'Amr, F. Zayadine and M. Zaghoul eds., *Studies in the History and Archaeology of Jordan*, vol. 5 (Amman, 1995), pp. 669-72; R. Pierobon, "Gerasa 1: Report of the Italian Archaeological Expedition to Jerash, Campaigns 1977-1981. Sanctuary of Artemis: Soundings in the Temple-Terrace, 1978-1980", *Mesopotamia* 18-19 (1983-1984), pp. 85-111; R. Pierobon, "The Italian Activity Within the Jerash Archaeological Project, 1982-83. Archaeological Research in the Sanctuary of Artemis. 2: the Area of the Kilns", in *Jerash Archaeological Project 1, 1981-83*, pp. 185-87; J. Schaefer and R.K. Falkner, "An Umayyad Potters' Complex in the North Theatre, Jerash", *Jerash Archaeological Project 1, 1981-83*, pp. 411-35.

⁷⁰ A. Melkawi, K. 'Amr and D.S. Whitcomb, "The Excavation of Two Seventh Century Pottery Kilns at Aqaba", *Annual of the Department of Antiquities of Jordan* 38 (1994), pp. 447-68. The seventh century date is curious; associated ceramics suggest no earlier than the mid-eighth.

included cooking pots, casseroles and water juglets, but the major product were amphorae (the significance of these is discussed further below). Direct evidence for potters' workshops has also been found at al-Ramlah, Tabariyah, and Caesarea. The Caesarea kilns, of 'Abbâsid-Tûlûnid date, produced lamps and decorated cream ware bowls, cups and "flasks" (water bottles).⁷¹ Not surprisingly al-Raqqah was host to a large ceramics industry.⁷²

Glass blowing, utilising the copious sand deposits along the east Mediterranean shore, was also practised at industrial levels. Crucibles, slag and ingots are the clearest evidence for glass making, and some or all of these elements have been reported from al-Raqqah, Caesarea, Baysân, Tiberias, Jarash and Pella (Fihl). The Pella workshop, of 'Abbâsid date, was located in the post-earthquake khân, and is represented by a row of furnaces in the central court and glass waste.⁷³ Although glass ingots had to be brought c. 70 km inland from the coast, the attraction of Pella was its fuel, presumably the hot-burning refuse from olive pressing. Elegant and technically very proficient free blown beakers, either plain or with "nipped" decoration, footed bowls, pinched bowls and a variety of flasks were the products of the Pella glassblowers.

The growing industrialisation of town centres is manifest in the construction of new installations devoted to the manufacture of other commodities, although the evidence is less comprehensive. At Baysân, the intact domed hall of the eastern bath was converted into a major industrial complex in the Umayyad period. The hall was subdivided into four rooms, each with six pools and a plastered workspace, around a central court. Channels and drains feed water into and out of the pools. The installation was probably devoted to the preparation of flax for linen production, a commodity for which Baysân was renowned, and survived until destroyed in the earthquake(s) of the mid eighth century.⁷⁴ At Caesarea the discovery of iron slag,

⁷¹ Holum and Hohlfelder, *King Herod's Dream*, pp. 231-41.

⁷² Volumes of kiln ash gave the manufacturing site the name Tell 'Aswad ("black mound"); see: Meinecke, "Raqqah on the Euphrates", p. 30; Meinecke, "al-Rakka", p. 412.

⁷³ O'Hea, "The Glass Industry of the Decapolis"; M. O'Hea, "Glass from Areas XXXIV and XXIX (Hellenistic-Abbasid). Abbasid Glass from Area XXIX", in A.G. Walmsley, P.G. Macumber, P.C. ...wards, S. Bourke and P.M. Watson, "The Eleventh and Twelfth Seasons of Excavations at Pella (Tabaqat Fahl) 1989-1990", *Annual of the Department of Antiquities of Jordan* 37 (1993), pp. 165-240, at pp. 222-27.

⁷⁴ Bar-Nathan and Mazon, "City Center (South) and Tel Iztabba Area; Excavations of the Antiquities Authority Expedition", pp. 37-38.

copper waste pieces, charcoal and ashes suggest the presence of metalworks devoted to iron tool and copper vessel production. Blacksmiths' shops were also identified at Pella and Jarash. A workshop, possibly for dyeing, was excavated at Tabariyah, and a series of industrial ovens dated to the second half of the eighth century were uncovered in the south baths at Busrâ.⁷⁵

We can be sure that these incidences of industrial activity in the Early Islamic towns of Bilâd al-Shâm were not unusual. The glassworks at Pella and the ceramic workshops of Jarash and Baysân, for instance, are only examples of a more widely based and active manufacturing economy. However, the greater presence of these activities in town centres becomes marked in the eighth and ninth centuries. Does this trend reflect a generally more industrialised society, or a greater reliance of some towns on manufacturing industries, or is it simply a very visible element in their urban decline? The answer is probably a combination of all three possibilities, weighted according to the circumstances. The presence of an imperial household in Damascus and, later, al-Raqqah along with local elites in the provincial and district towns of Bilâd al-Shâm would have created a significantly greater demand for manufactured items, from luxury to the everyday. In major centres such as Raqqah and, presumably, Damascus demand was met by isolated industrial quarters. For other towns, the strong demand for consumables offered something of an economic haven in the face of growing urban contraction, as seems to be the case with eighth and particularly ninth century Baysân, Pella and Jarash. Vacant space in these towns was taken up by workshops producing fabrics, pottery and glass. While the occupation of old temple compounds and defunct bathhouses is to be expected, unusual is the setting up of a potters' workshop in a domestic area of west Jarash (presumably by the house owners) in the ninth century. The once monumental heart of the Classical town had seemingly become undesirable by this time (due to earthquakes or failure of the water supply?), and was given up in favour of its predom-

⁷⁵ Caesarea: Holum and Hohlfelder, *King Herod's Dream*, p. 211; Pella and Jarash: see A.G. Walmsley, "Land, Resources and Industry in Early Islamic Jordan (Seventh-Eleventh century). Current Research and Future Directions", *Studies in the History and Archaeology of Jordan* 6 (1997), pp. 345-51; Tabariyah dye works: Foerster, "Tiberias. Excavations South of the City", p. 1473; Busrâ workshop: S. Berthier, "Sondage dans le Secteur des Thermes Sud a Busra (Syrie) 1985", *Berytus* 33 (1985), pp. 5-45.

inantly domestic eastern half. Interestingly the final demise of Jarash as a centre of note (it is ignored by the tenth century Arabic geographers) coincides with the closing of these kilns, an event brought about, it can be argued, by a significant change in consumer taste for household ceramics.⁷⁶ Economic and political changes had challenged Jarash's commercial base, which had become narrowly focused on manufacturing industries and administrative responsibilities.

Rural settlement and production

a. Exploitation and the processing of mineral resources

The products of mining and smelting industries, especially iron, copper and gold, were in strong demand in Early Islamic Bilâd al-Shâm. The archaeological evidence, although limited, indicates that these industries were officially organised and promoted by the Umayyad and early 'Abbâsid administration. The clearest evidence comes from a major reassessment by U. Avner and J. Magness of previously unrelated archaeological discoveries in the southern 'Arabah and al-Naqab.⁷⁷

Avner and Magness' study has identified a heightened level of activity in the exploitation and smelting of mineral ores in southern al-Naqab and the 'Arabah, a geographical region seen as part of Aylah's hinterland. Copper was mined at a number of locations, with one mine having galleries and halls over three km long. Near the mines were several smelting camps, easily identified by expanses of slag waste from the smelting process. Acacia was the preferred wood for the charcoal used in smelting the copper ore. Evidence for gold production and a stone quarry was also found. Associated with the mining and smelting activities were six villages, built in a distinctly similar style. The essentially uniform structural characteristics and fixed room dimensions suggests these villages were created at the direction of a single body, most probably the State at a provincial level. Each village had an industrial core to its economy: copper smelting, pottery firing, and shell working for jewellery and furniture

⁷⁶ Discussed in A.G. Walmsley, "Turning East. The Appearance of Islamic Cream Wares in Jordan – the End of Antiquity?", in E. Villeneuve and P.M. Watson eds., *La céramique byzantine et proto-islamique en Syrie-Jordanie (IV^e-VIII^e siècles)* (Beyrouth, 1999), in press.

⁷⁷ U. Avner and J. Magness, "Early Islamic Settlement in the Southern Negev", *Bulletin of the American Schools of Oriental Research* 310 (1998), pp. 39-57.

inlays. The villages lay near main routes through the area to Egypt and Palestine, providing reciprocal benefits to settler and traveller.⁷⁸ On the northern route to Zughar (see above) a fortress was built at the oasis of Ghadhyan (Yotvata), and supported by the establishment of a major agricultural estate (below). Excavations at the fort recovered a gold *dinar* from the caliphate of al-Mahdī (775-785), a clear indication of the considerable regional significance of this area, and the roads that passed through it, in the eighth century.

The evidence from the Aylah hinterland is impressive but surely not exceptional for eighth century Bilād al-Shām, and the countryside around many towns would have equally been host to a wide range of mining and industrial activities. Yet the Aylah example is particularly significant because it clearly shows that mineral exploitation in the Early Islamic period was a highly organised and capital intensive industry. The impression gained is of a state-controlled industry, bringing wider benefits to rural areas through settlement programs, agricultural development and support for communication routes.

b. *An "agricultural revolution"?*

The agricultural regime of Bilād al-Shām experienced fundamental change in the seventh and eighth centuries. Perhaps during the Sassanid occupation, but certainly following the Islamic conquest, many new crops were introduced (notably sugar cane, rice, cotton, bananas, indigo and citrus fruits) and established crops improved (dates, grapes and figs for instance). The introduction and cultivation of these new crops, many of which came from the tropical east, has been dubbed the "Medieval Green Revolution".⁷⁹ The evidence indicates that this rural "revolution" initiated considerable economic and (possibly) social change in the countryside. There is no question that the agricultural economy similarly underwent considerable expansion in Early Islamic Bilād al-Shām, especially but not exclusively under the Marwānid Umayyads. The archaeological evidence

⁷⁸ In the Early Islamic period Aylah and its hinterland fell under the jurisdiction of Egypt, because the al-Fustāt-Hijāz land route, including the pilgrim's road, passed through Aylah.

⁷⁹ A.M. Watson, "A Medieval Green Revolution: New Crops and Farming Techniques in the Early Islamic World", in A.L. Udovitch ed., *The Islamic Middle East, 700-1900. Studies in Economic and Social History* (New Jersey, 1981); A.M. Watson, *Agricultural Innovation in the Early Islamic World: The Diffusion of Crops and Farming Techniques, 700-1000* (Cambridge, 1983).

for eighth century rural expansion includes epigraphic sources, the results of regional surveys, some excavation data, and the presence of large state-owned farm estates in environmentally marginal zones.

The area most likely to benefit from the introduction of new crops was the Jordan Valley, as climatically it was most suited to the introduction of tropical crops. A deep rift valley, it is pleasantly warm in winter and hot in summer, and north of the Dead Sea well supplied with water. Geographical sources leave little doubt that sugar cane, rice, indigo, bananas were widely cultivated by the tenth century, but probably the widespread adoption of these crops took place in the early eighth century. Archaeological evidence in support of this view includes a large estate north of Tabariyah, a new agricultural development at Jericho and the establishment of new villages engaged in sugar production on the valley floor.⁸⁰ The settlement sequence at Tell Abu Qa'dan, a sugar village, is particularly informative. Constructed of mudbrick, the village was first established in the eighth century and continuously occupied for around 800 years. Pottery evidence for sugar production is overwhelming in later levels, although it is more difficult to identify for the earlier periods. It may be no coincidence that the expansion of agricultural activity in the Jordan Valley was matched by a change in land use in the adjoining hills, for instance around Pella.⁸¹ Although probably not the sole reason, the introduction of labour intensive agriculture in the valley may be partly responsible for the implementation of less intensive exploitation strategies in the Pella foothills. Farmsteads were deserted and a highly developed viniculture replaced by other agricultural activities, perhaps a mixture of aboriculture, spring cropping in the small valleys and animal herding on the hill flanks. The

⁸⁰ Tabariyah and Jericho estates: Creswell rev. Allen, *A Short Account of Early Muslim Architecture*, pp. 93-95; O. Grabar, J. Perrot, B. Ravani and M. Rosen, "Sondages à Khirbet el-Minyeh", *Israel Exploration Journal* 10 (1960), pp. 226-43; G.R.D. King, "Settlement Patterns in Islamic Jordan: the Umayyads and their Use of the Land", in S. Tell, G. Bisheh, F. Zayadine, K. 'Amr and M. Zaghoul eds., *Studies in the History and Archaeology of Jordan*, vol. 4 (Amman, 1992), pp. 369-75, dated to the reigns of al-Walid I and Hisham respectively; villages: H.J. Franken and J. Kalsbeek, *Potters of a Medieval Village in the Jordan Valley*, vol. 3 (Amsterdam/Oxford, 1975); J. Kareem, *Evidence of the Umayyad occupation in the Jordan Valley as seen in the Jisr Sheikh Hussein region* (MA thesis, Yarmouk University, 1987); D.S. Whitcomb, "The Islamic Period as Seen from Selected Sites", in B. MacDonald ed., *The Southern Ghors and Northeast 'Arabah Archaeological Survey*, vol. 5 (Sheffield, 1992), pp. 113-18.

⁸¹ P.M. Watson and M. O'Hea, "Pella Hinterland Survey 1994: Preliminary Report", *Levant* 28 (1996), pp. 63-76, at p. 74.

demand for labour, and the potential greater earnings from specialised "cash crops" on the Jordan Valley floor, drew away the farm workers from the Pella hills.

A similar process may account, in part, for the steady depopulation of the limestone hills (the Bélus Massif) between Antioch and Aleppo in north Syria. Modern exploration of the deserted villages (the so-called "dead cities") that visually dominate this bleak hill zone has sought to explain why these architecturally impressive settlements, characterised by huge stone churches and houses, came to be abandoned after the Islamic conquest. In a pioneering and justly famous study by G. Tchalenko the abandonment of the villages, which he perceived as happening suddenly, was attributed to an economic cause.⁸² In very simple terms, Tchalenko explained the apparent prosperity of the Bélus Massif on cash-cropping monoculture, and specifically the intensive cultivation of olive trees for oil production. However, he argued, the Islamic conquest ruptured crucial trade links with the Mediterranean world, causing a sudden and permanent collapse of the olive oil industry and economic destitution in the villages.

Work that is more recent has raised serious doubts on both Tchalenko's explanation for economic collapse in the region and his chronology of decline. In an influential study, Hugh Kennedy has cogently argued that the rural decline began much earlier, around the middle of the sixth century. The failure of the olive monoculture was caused by the collapse of local, not export, markets (especially Antioch) following periodic visitations of the plague, earthquakes and occupation by the Sassanids. Failed farms were consolidated into larger agricultural estates, perhaps owned by the monasteries, which were devoted to mixed farming, rather than monoculture. However work at one of the villages, Dêhès, by a French team led by J.-P. Sodini and G. Tate has produced a rather different economic model. Instead of specialised monoculture, most villages practised a broadly based economy of animal husbandry and mixed agriculture, including (but not exclusively) olive cultivation. The vast majority of village buildings functioned as utilitarian domestic units on two levels, with the ground floor devoted to stabling animals and agrarian activities and living quarters concentrated on the first floor. While con-

⁸² G. Tchalenko, *Villages antiques de la Syrie du Nord. Le Massif du Bélus à l'Epoque Romaine*, vols. 1-3 (Paris, 1953-58).

struction activity seemingly peaked in the early sixth century, archaeological and architectural evidence additionally and importantly showed that many buildings were continuously occupied well into Islamic times. Houses were periodically refurbished (although to a variable standard), and often subdivided, an activity often seen as reflecting population growth but equally may reflect complex inheritance matters. Indisputable evidence for population decline on a large, and ever increasing, scale does not appear until the early ninth century. Even then, abandonment of the villages did not take place until the following tenth century, probably in response to the destructive Byzantine-Muslim conflicts that embroiled the region. Interestingly the ninth century depopulation coincided with the growth of al-Raqqah (above) and Aleppo, and the need for settlers in the fortified borderlands with Byzantium (the *Thughûr*). The greater security offered by towns in troubled times, the rise of new economic opportunities in Aleppo and especially al-Raqqah, a huge source of employment, and the demand for settlers in the border *Thughûr* would have offered a much needed opportunity to the increasingly impoverished villagers in the nearby hill zones.⁸³

It should come as no surprise that the Raqqah hinterland was densely occupied with district centres and agricultural villages in the Early Islamic period. Particularly detailed evidence has been produced by survey work and excavations in the Balikh Valley, a northern tributary of the Euphrates River in the Jazîrah.⁸⁴ Two important sites stood at either end of the Balikh in the Early Islamic period: Harrân near its headwaters in the north and al-Raqqah to

⁸³ Sixth century decline: Kennedy, "The Last Century of Byzantine Syria", at pp. 157-62; Déhès: J.-P. Sodini, G. Tate, B. Bavant, S. Bavant, J.-L. Biscop and D. Orssaud, "Déhès (Syrie du Nord). Campagnes I-III (1976-1978), Recherches sur l'Habitat Rural", *Syria* 57 (1980), pp. 1-304; G. Tate, *Les campagnes de la Syrie du Nord du II^e au VII^e siècle*, I (Paris, 1992), esp. pp. 275-350; see also Foss, "The Near Eastern Countryside in Late Antiquity", at pp. 213-23, and Foss, "Syria in Transition, A.D. 550-750", at pp. 197-204. Thughûr: P. von Sivers, "Taxes and Trade in the 'Abbasid Thughur, 750-962/133-351", *Journal of the Economic and Social History of the Orient* 25 (1982), pp. 71-99.

⁸⁴ K. Bartl, "The Balih Valley, Northern Syria, During the Islamic Period. Remarks Concerning the Historical Topography", *Berytus* 41 (1993-4), pp. 29-38; K. Bartl, *Frühislamische Besiedlung im Balih-Tal/Nordsyrien* (Berlin, 1994); C.-P. Haase, "Madīnat al-Fār/Hisn Maslama – First Archaeological Soundings at the Site and the History of an Umayyad Domain in Abbasid Times", in M.A. Bakhit and R. Schick eds. *Proceedings of the Fifth International Conference on the History of Bilad al-Sham. Bilad al-Sham during the Abbasid Period*, English and French Section (Amman, 1991), pp. 206-25.

the south near the junction with the Euphrates. A major road joined the two urban centres, and linked important east-west routes (as has already been seen for al-Raqqah). Between Harrân and al-Raqqah were five settlements (not all positively identified), including an Umayyad foundation Hisn Maslamah, built by one of the sons of 'Abd al-Malik while provincial governor (709-719). Constructed as a fort, water was brought from the Balikh by canal, which also irrigated adjacent agricultural lands belonging to Maslamah. Suburbs grew up outside the original walled settlement, and excavations suggest occupation peaked at the site in the 'Abbâsid period. Written sources confirm the dense settlement of the Balikh in the eighth and ninth centuries, describing the valley as filled with irrigated estates, villages and agricultural farmlands.

Other agricultural development projects were undertaken in the Euphrates area. Prominent was the *Nahr Maslamah*, also dug under Maslamah ibn 'Abd al-Malik, a massive irrigation project near Neocaesarea (Qâsirîn, modern Dibsi Faraj) to water fields on the south bank of the Euphrates. Thereafter Maslamah, who had extensive rural holdings, held these lands and villages as a fief, and they were passed on to his descendants until confiscated by the 'Abbâsids after the 750 revolution. Not surprisingly extensive excavations at Qâsirîn have uncovered major occupational levels dating to the Umayyad and 'Abbâsid periods, ending at the time of a severe earthquake in 859.⁸⁵ By way of contrast the Jazîrah plain, at least parts of its grain-growing northern reaches, appears to have suffered from a population loss and deteriorating socio-economic conditions over the same period.⁸⁶ Again, the attraction of the new Islamic cities (al-Raqqah, Baghdâd, and Mawsil) and rural development projects may have accounted, in part, for the demographic decline.

The rural landownings of Maslamah were not exceptional, for the

⁸⁵ Canal: Al-Baladhuri, *The Origins of the Islamic State*, p. 232; T.J. Wilkinson, "The Physical Environment of Dibsi Faraj: A Preliminary Study", an appendix to R.P. Harper, "Excavations at Dibsi Faraj, Northern Syria, 1972-1974: a Preliminary Note on the Site and its Monuments", *Dumbarton Oaks Papers* 29 (1975), pp. 319-38, at pp. 334-38; Qâsirîn: Harper, "Excavations at Dibsi Faraj"; see also O. Grabar, "Umayyad 'Palace' and the 'Abbasid 'Revolution'", *Studia Islamica* 18 (1962), pp. 5-18; O. Grabar, *The Formation of Islamic Art* (New Haven, 1973), pp. 34-35.

⁸⁶ The premise is based on survey data (although with some literary support), so some caution must be exercised. See: T.J. Wilkinson and D.J. Tucker, *Settlement Development in the North Jazira, Iraq. A Study of the Archaeological Landscape* (Baghdad, 1995), pp. 69-77.

ownership of agricultural estates by the Arab ruling elite was popular and geographically widespread in Umayyad Bilād al-Shām. As with Maslamah's estates, many of these properties were seized by the 'Abbāsīd ruling family and preserved as an operating entity. Well known since the seminal studies of Sauvaget and Grabar are the usually expansive agricultural estates associated with the "desert castles" (*qusūr*) of the Jordanian and Syrian steppe lands, the *bādiyah*, although not all were completely new foundations.⁸⁷ In some instances the *qusūr* represent embellishments and improvements, often substantial, to existing rural properties confiscated at the time of the Islamic conquest or subsequently purchased. The provision of water on a major scale was a crucial part of each establishment as evidenced by the dams, aqueducts, canals, reservoirs, sluices, wells and cisterns identified near many *qusūr*. As well as supplying the buildings, the water was directed to field systems, usually enclosed, where agriculture and possibly animal breeding took place. An interesting example is Qasr al-Hayr al-Gharbī ("west"), built by Hishām in 727 to the north-east of Damascus. Water to a palace, bathhouse and *khān* was conducted through a subterranean canal from a dam of likely Roman-period construction located 16 km to the south. A garden was enclosed by walls measuring 1050 by 442 m, and was supplied with water from a 2.75 m thick barrage that, by spanning the valley floor, channelled the winter rains into the agricultural enclosure.⁸⁸ On many of the *qusūr*, the cultivation of olive trees was a favoured activity. One of Hishām's establishments was named *al-Zaytūnah* (from *zaytūn*, "olive"), a probable reference to one or other of the Qasr al-Hayr sites, presumably because of its extensive olive plantation.

In addition to the estates owned by the caliph and his family, other members of the Arab ruling elite could, and often did, own rural properties. These were commonly obtained as grants from the caliphs in the years after the Islamic conquest, but could be purchased. However in the early period, immediately after the conquest, the

⁸⁷ J. Sauvaget, "Les Ruines Omeyyades du Djebel Seis", *Syria* 20 (1939), pp. 239-56; J. Sauvaget, "Châteaux Umayyades de Syrie. Contribution à l'Étude de la Colonisation Arabe aux I^{er} et II^e Siècles de l'Hégire", *Revue des Études Islamiques* 35 (1967), pp. 1-49; Grabar, "Umayyad 'Palace' and the 'Abbasid 'Revolution'"; Grabar, *The Formation of Islamic Art*, esp. p. 32.

⁸⁸ Creswell rev. Allen, *A Short Account of Early Muslim Architecture*, pp. 135-42; D. Schlumberger, "Les Fouilles de Qasr el Heir el Gharbi (1936-38). Rapport Préliminaire", *Syria* 20 (1939), pp. 195-238, 324-73.

acquisition of estates by Muslims was considered degrading and regressive. They could benefit from the taxes, but should not own the land, as they would be liable to pay the land tax, the *kharāj*, rather than extracting it. Opinions quickly changed, encouraged by the circulation of *hadīth* (sayings of the Prophet Muhammad) in favour of farming and land ownership. One tradition in particular praised the Muslim who oversaw the economic development of unproductive land. By the eighth century the acquisition of rural properties had become a popular way of investing money, due to the profitability and security they offered. Often estates were granted a special tax status, which benefited both landowner (who paid less tax) and caliph (who received the tax directly). Revealing is the history of a family of settlers in the Jibāl district of western Iran who traded in perfumes and sheep and invested the proceeds in estates. Their increasingly wealthy descendants promoted the local town by building fortifications and attracting a population, and subsequently became highly influential in the 'Abbâsid court under Hârûn al-Rashîd. Here we see trade could serve as a source of wealth, but absolute richness and an esteemed social position was obtained by owning land. In the opinion of many religious scholars of the time, agriculture was clearly preferable to trade, due to its greater usefulness.⁸⁹

The acquisition of estates in conquered areas by the elite (some of whom came from Pre-Islamic land owning families) began in earnest under the Caliph 'Uthmân (644-656), for his predecessor, 'Umar, did not approve of the practice. A favoured area for obtaining estates was the *Dârûm* region, an area of steppe lands in southern Palestine positioned east of 'Asqalân. It was here that the "Conqueror of Palestine", 'Amr ibn al-'Âs, owned an estate called 'Ajlân which served as a place of retreat during political upheavals.⁹⁰ Also used to political advantage was the village-estate of 'Ali ibn 'Abd Allah ibn al-'Abbâs known as Humaymah, located further to the east on the other side of the Wâdī 'Arabah. Purchased in 687/8, the site was embellished with a mosque and *qasr*, and became a focal

⁸⁹ A. Elad, "Two Identical Inscriptions from the Jund Filastin from the Reign of the 'Abbasid Caliph, al-Muqtadir", *Journal of the Economic and Social History of the Orient* 35 (1992), pp. 301-60; M.J. Kister, "Land property and *Jihād*", *Journal of the Economic and Social History of the Orient* 34 (1991), pp. 270-311.

⁹⁰ See the references above, also M. Lecker, "The Estates of 'Amr b. al-'As in Palestine: Notes on a New Negev Arabic Inscription", *Bulletin of the School of Oriental and African Studies* 52 (1989), pp. 24-37.

point of the 'Abbâsid revolt against the Umayyads. Considerable investment, indicative of a state project, was made in developing agricultural farms near the oases of the southern 'Arabah near Aylah. At Ghadhyan, underground canals (*qanats*, tunnels reached by vertical shafts to the surface) with a total length of 10 km brought water to about 300 ha. of fields. The farm at Evrona was also supplied by qanats, with again about 300 hectares of new fields cleared from rocky and previously uncultivated land. An excavated farmhouse produced date pips, olive and peach stones, almonds, carob seeds, and wheat and barley. The qanats were a new innovation at both sites (suggesting their introduction into Palestine with the Islamic conquest), as they cut through earlier open canal systems dating from Nabataean through to Byzantine times.⁹¹

The Umayyad estates in Palestine were commonly confiscated by the 'Abbâsid caliphs and new ones were acquired by purchase. In the early tenth century, estates located in Palestine were still owned by the caliph and court members, in spite of the political uncertainty of the period. Archaeological evidence also demonstrates that, contrary to common opinion, at least some of the bâdiyah estates in Jordan and Syria continued after the rise of the 'Abbâsid caliphate, for instance al-Muwaqqar near 'Ammân and Qasr al-Hayr al-Sharqî.⁹² Although perhaps maintained as state properties by the early 'Abbâsids, their continued occupation also suggests that they may have been reasonably self-supporting and were not entirely dependent on cash grants from the government.

4. *Commodities and the nature of trade: old structures, new systems?*

From the wide range of indicators presented above, it would seem as though very favourable conditions existed in Early Islamic Bilâd al-Shâm for the widespread movement of goods, both internally and

⁹¹ Humaymah: recently R. Foote and J.P. Oleson, "Humeima Excavation Project, 1995-96", *Fondation Max Van Berchem Bulletin* 10 (1996), pp. 1-4; J.P. Oleson, K. 'Amr, R. Foote and R. Schick, "Preliminary Report on the Humayma Excavation Project, 1993", *Annual of the Department of Antiquities of Jordan* 39 (1995), pp. 317-54; 'Arabah: Avner and Magness, "Early Islamic Settlement in the Southern Negev".

⁹² Muwaqqar: M. Najjar, "Abbasid Pottery from el-Muwaqqar", *Annual of the Department of Antiquities of Jordan* 33 (1989), pp. 305-22; Qasr al-Hayr: Grabar, *City in the Desert*.

with neighbouring regions. The political, cultural and economic primacy of towns persisted strongly after the Islamic conquest due to the presence of powerful urban-based elites and the establishment of a successful and unified system of government, the new Islamic caliphate. The existence of a developing market economy and its successful consolidation in the first half of the eighth century is indicated by many improvements to the urban environment, notably the construction of markets, and the maintenance of an extensive communications network by the government. A growing demand for commodities, especially after the establishment of the Umayyad caliphate in Damascus, is revealed in the strong performance of urban and rural industries. Unfortunately, trying to comprehensively map the nature and extent of the resultant exchange is very difficult, due to the sparse and patchy evidence available. There is some written material, but this mostly dates to after the eighth century, and a little more archaeological data. Of the latter certain categories of ceramics and coins are particularly informative, and will constitute the bulk of the archaeological evidence considered here. However, these conventional indicators of exchange have greater limitations in the Early Islamic period. Quite significant changes occurred in the way goods were shipped in the eighth and ninth centuries, and copper coinage essentially ceased to be produced and was replaced by fractional silver. In addition, the establishment of banking structures, such as letters of credit, would have reduced the circulation of precious coin.⁹³ Therefore, the absence of major trade indicators in the archaeological record may not reflect the demise of commerce, but the fact it was being conducted in a different, and less visible, way.

Written sources

The brief glimpses afforded by written sources indicate that commodity exchange over long distances was taking place by the mid-

⁹³ New shipping methods, the economic role of fractional silver, and banking structures appear well developed in the documents of the Cairo Geniza, for which see: S. Goitein, *A Mediterranean Society*, Vol. 1: *Economic Foundations*. Their evolution in the eighth and ninth centuries, during a time of considerable political and cultural unity, can be argued, and is indicated by the virtual irrelevance of copper currency by the ninth century and the effective disappearance of amphora from the archaeological record at roughly the same time. While facilitating trade within the Islamic world, these structures may have not helped in, and could have acted as a disincentive to, building commercial ties with regions outside of the Islamic polity.

ninth century, but that this trade was restricted in both geographical extent and the types of items exchanged. The justly famous account of the multilingual Jewish merchants known as the Radhanites (Râdhâniyah) in the geography of Ibn Khurdâdhbih (d. 913) is as remarkable as it is exceptional, probably, for the age.⁹⁴ From Spain and Italy the merchants brought slaves, eunuchs, furs, specialist cloth and swords, travelling by sea and land over a variety of routes as far as southern Arabia, India and China. On the return journey, they carried aromatics and spices, especially those required for the making of medicines. All of these commodities, being perishable, would leave no clear evidence in the archaeological record.

The Radhanites were, seemingly, a "unique" class of traders, in that they successfully transversed a number of major geographical and political spheres. Perhaps more typical is a second mid-ninth century source in which a vast range of merchandise is listed as entering 'Irâq. The source reveals that the major orientation of inter-regional trade in this century was with the eastern Muslim provinces and, beyond them, India and China. Commercial ties with countries to the west were much less extensive. Egypt and North Africa provided some specialist commodities, but outside of the Muslim world, the only direct ties were with Armenia, Azarbayjân and the territory of the Khazars. From these districts came slaves, body armour, furs, saddles, carpets and wool, and only indirectly an opening to trade with Byzantium.⁹⁵

The 830s and 840s were characterised by a major expansion of commercial activity in the Islamic world, and quite possibly this growth was accompanied by significant changes to the existing trade networks. New commercial opportunities arose with the creation of huge urban markets in al-'Irâq and the Jazîrah, and resulted in the formation of enlarged and increasingly direct trade links with non-Muslim territories, especially China and Russia (see below for an

⁹⁴ From the considerable literature see, usefully: M. Gil, "The Radhanite Merchants and the Land of Radhan", *Journal of the Economic and Social History of the Orient* 17 (1974), pp. 299-328; R.S. Lopez and I.W. Raymond, *Medieval Trade in the Mediterranean World: Illustrative Documents* (New York, 1955), and generally C. Cahen, "Commercial Relations Between the Near East and Western Europe from the VIIIth to the XIth Century", in K.I. Semaan ed., *Islam and the Medieval West: Aspects of Intercultural Relations* (Albany, 1980), pp. 1-25. Gil argues two important points: firstly that the Radanites were natives of 'Iraq, not European Jews, and secondly their visits to *Firanjâ* referred to Frankish Italy, not France proper.

⁹⁵ Lopez and Raymond, *Medieval Trade in the Mediterranean World*, pp. 27-29.

archaeological view). The 840s also marked the beginning of a major shift in economic fundamentals on the Muslim-Byzantine frontier in northern Bilâd al-Shâm.⁹⁶ Under the Umayyads and early 'Abbâsids the frontier was a zone of near-continuous conflict where the ideologically driven and often vigorously pursued struggle with Byzantium was acted out. Very limited written evidence exists for direct trade on any scale between the competing powers in the eighth century, and the border town markets mentioned in the sources would have served mostly local needs. A lessening of hostilities from the mid-ninth century and the expansion of trade on the Euphrates route between the Arabian Gulf and the Mediterranean Sea via Baghdâd and al-Raqqah, would have created a situation more conducive to trade. The ninth century redevelopment of al-Mina, Antioch's natural harbour (above), coincided with the commercial revival of the Euphrates route.

In general terms the extent to which written sources accurately describe the situation before the mid-ninth century is very difficult to assess. Exchange systems would have developed to meet the expansion in trade during the 830s and 840s, making them structurally different from those in force during the previous century. To understand, however imperfectly, the nature and extent of exchange in the eighth century, before the ninth century changes, we need to turn to archaeological sources.

Archaeological sources

The many difficulties associated with Early Islamic archaeology outlined at the start of this chapter (negligently excavated, interpreted and reported sites) are particularly obstructive to a consideration of economic issues, especially trade. Furthermore, many major centres, notably Damascus and coastal localities, are inadequately investigated, especially from an archaeological perspective. In many cases, these towns have experienced unbroken occupation until today, a major impediment to archaeological investigation. Nevertheless, questions on the nature and extent of eighth century trade in Bilâd al-

⁹⁶ J.F. Haldon and H. Kennedy, "The Arab-Byzantine Frontier in the Eighth and Ninth Centuries: Military Organisation and Society in the Borderlands", *Recueil des travaux de l'Institut d'études Byzantines* 19 (1980), pp. 79-116, esp. pp. 107-11; also Sivers, "Taxes and Trade in the 'Abbasid Thughur".

Shâm are not beyond consideration, although the material allows for little more than a deliberation on what exchange could have happened. The archaeological information is, largely, still too limited to argue from an absence of evidence.

The most valuable sources for identifying intra- and inter-regional trade networks in Early Islamic Bilâd al-Shâm are ceramics and coins, as these have been found in sufficient quantity and are usually reported in reasonable detail. While a study of these material groups can establish the existence of local and long distance contact and exchange, the exact nature of that interchange can not always be established. Furthermore, the evidence for commerce in the eighth and ninth centuries has to be treated on its own terms, and comparisons with trade systems of earlier periods (especially the Roman empire) can be invalid. For instance, a shift from ceramic containers to materials such as animal skins and wickerwork baskets, as revealed in the Cairo Geniza, significantly reduces the reliability of archaeological data as a faithful record of exchange. Clearly one category, pottery, leaves a very clear message in the archaeological record; the other, being perishable, is next to invisible. Changing methods of transportation, especially a growing reliance on sea borne trade, from the later eighth century apparently had an obvious and significant impact on the way commodities were transported, particularly consumables and fragile goods.

a. *Ceramics and trade*

Pottery, an enduring, visible and comprehensible record of human activity, was widely manufactured and commonly traded in Early Islamic Bilâd al-Shâm. Tableware, cooking vessels, storage jars and mixing bowls were produced in the kilns of Baysân, Jarash and many other as yet unidentified locations and distributed to local and regional markets. Fabric types and forms show considerable continuity from late sixth and early seventh-century Byzantine types.⁹⁷ Unlike the

⁹⁷ For a detailed summary see: J.-P. Sodini and E. Villeneuve, "Le Passage de la Céramique Byzantine à la Céramique Omeyyade", in, *La Syrie de Byzance à l'Islam VII^e-VIII^e siècles*, pp. 195-218. That the Islamic Conquest did not sever existing commercial links with Egypt, North Africa, Cyprus and Byzantine Asia Minor has been adequately demonstrated by the unbroken import of fine Red Slip tableware into south Bilâd al-Shâm in the seventh century. Examples have been found as far inland as Busrâ (Bostra), Jarash, 'Ammân and Umm al-Rasâs. Rather, the fall in imports that occurred during this century was determined by declining production initiated by changes in local tastes in different parts of the Mediterranean world;

Byzantine period, however, the demand for household pottery—notably fine wares—in the eighth century was almost solely satisfied by local production (although nearly all coarse wares and many varieties of fine wares were locally produced in earlier centuries, and this shift was gradual and should not be exaggerated). In general terms, the excavation of domestic levels datable to the eighth century typically produces a limited number of fabrics and shapes, and only a few exotic varieties. The heightened demand on local producers probably accounts for the considerable expansion of pottery workshops in eighth century Jarash and Baysân, as described earlier, and presumably many other localities. In a different league, however, were the large jars (amphorae) used for shipping major consumables, especially olive and sesame oil, wine and fish sauce (*garum*). These continue to be common in the seventh and eighth centuries, when they were transported for their contents over great distances.

Of primary interest is the ceramic evidence for localised trade networks, of which there is a reasonable amount. In southern Bilâd al-Shâm two pottery types are particularly informative, as they are distinctive and, hence, easily identified and usually reported. The first type has traditionally been called “Fine Byzantine Ware”, although it is now known that this pottery, while originating in the mid-sixth century, was very popular in Palestine and Jordan between the seventh and ninth centuries. The second type is a distinctive pale cream to pink ware, sometimes with an off-white slip, which was decorated freely and liberally with a diagnostic regime of painted geometric designs in a deep red to purplish-red paint. Chronologically the origin of this Red Painted Ware is later, probably the second quarter of the eighth century, and it continued strongly into the ninth century.

“Fine Byzantine Ware” (perhaps better called Palestinian Fine Table

see: C. Wickham, “Trade and Exchange, 550-750: the view from the West”, in L. Conrad ed., *Late Antiquity and Early Islam* 4 (Princeton, in press). This process was largely complete by the beginning of our period (680), although Egyptian Red Slip “A” and “C” was still arriving at Pella and Tiberias until at least the middle of the eighth century (for which see D. Stacey, “Umayyad and Egyptian Red-slip ‘A’ Ware from Tiberias”, *Bulletin of the Anglo-Israel Archaeological Society* 8 (1988-9), pp. 21-33; P.M. Watson, “Change in Foreign and Regional Economic Links with Pella in the Seventh Century A.D.: The Ceramic Evidence”, in *La Syrie de Byzance à l’Islam VII-VIII^e siècles*, pp. 233-48; P.M. Watson, “Ceramic Evidence for Egyptian Links with Northern Jordan in the 6th-8th Centuries A.D.”, in S. Bourke and J.-P. Descœudres eds., *Trade, Contact, and the Movement of Peoples in the Eastern Mediterranean. Studies in Honour of J. Basil Hennessy*, Mediterranean Archaeology Supplement 3 (Sydney, 1995), pp. 303-20).

Ware, so hereafter PFTW) is a major class of Late Antique and Early Islamic pottery, superior in form and manufacture to the Red Slip wares popular in the Late Antique East.⁹⁸ The clay was finely levigated and ultra-thinly thrown on a fast wheel to produce extremely elegant cups, bowls, jars and jugs. The firing was very controlled, and produced a mellow light orange to brown coloured fabric. J. Magness believes the ware was inspired by metallic prototypes. Decoration of the outside surfaces involved knife burnishing, an orderly wavy line impressed below the rim on sixth and seventh centuries cups, and incised "nicks" on jars and jugs. The first cup varieties also had a distinctive ring base, formed by the removal of surplus clay with a paring knife. PFTW reached its technological excellence in the eighth and ninth centuries, when high-walled cups of varying sizes were produced with exceptionally thin walls. New shapes, especially dishes and plates, also appeared by the eighth century to take the place of the increasingly unavailable, or undesirable, Red Slip wares.⁹⁹ However, the jars and jugs ceased to be produced around this time, and by the early ninth century these forms had been replaced by completely new types in a fine cream ware. The fabric and shape of these new cream ware varieties were inspired by a ceramic tradition originating outside Bilâd al-Shâm (see further below).

PFTW was extensively distributed in Palestine and Jordan, with find sites centring on the north and central Jordan Valley, the Jordanian mountain range (particularly in the north), the Palestinian hills and south in the Naqab (Negev). Magness plausibly suggests that the Jerusalem area was the production centre for PFTW, although

⁹⁸ The ware type has not been studied sufficiently, but see: M. Gichon, "Fine Byzantine Wares from the South of Israel", *Palestine Exploration Quarterly* 106 (1974), pp. 119-39; J. Magness, *Jerusalem Ceramic Chronology, circa 200-800 C.E.* (Sheffield, 1993) pp. 166-71; A.G. Walmsley, "Tradition, Innovation, and Imitation in the Material Culture of Islamic Jordan: the First Four Centuries", in K. 'Amr, F. Zayadine and M. Zaghoul eds., *Studies in the History and Archaeology of Jordan*, vol. 5 (Amman, 1995), pp. 657-68 for a start.

⁹⁹ Co-incidentally the production of a major series of plates with bichrome and sometimes stamped decoration, known as "Jarash Bowls", ceased in the middle to late seventh century (see: A. Uscatescu, "Jarash Bowls and other related local wares from the Spanish Excavations at the *Macellum* of Gerasa (Jarash)", *Annual of the Department of Antiquities of Jordan* 39 (1995), pp. 365-408; A. Uscatescu, *La Cerámica del Macellum de Gerasa (Yaras, Jordania)* (Madrid, 1996); P.M. Watson, "Jarash Bowls: Study of a Provincial Group of Byzantine Decorated Fine Ware", in F. Zayadine ed., *Jerash Archaeological Project 2 (1984-1988)* (Paris, 1989), pp. 223-53).

no workshops have been located. From Jerusalem, appreciable quantities of PFTW were moved north and south for a distance of up to 120 km. Distribution was particularly marked to the north-east and south-west of Jerusalem along the well travelled and, from the beginning of the seventh century, the increasingly important state-run route between Egypt and Damascus. The production and distribution of PFTW offers a revealing glimpse into cultural and economic developments in south Bilâd al-Shâm in the Late Antique-Early Islamic period. There is evidence for clear continuity at the time of the Islamic conquest, conspicuous market adjustments and technological improvements in the seventh and eighth century, and growing competition from new structures in the early ninth century.

Red Painted Ware (hereafter RPW) was another major household ware in south Bilâd al-Shâm from the eighth century onwards.¹⁰⁰ The fabric was well levigated with small limestone, calcite and chert inclusions, and was well fired to produce a hard ceramic coloured pale buff-pink to brick red. On darker bodied vessels, a cream slip was initially applied to provide a contrasting background for the paint. The appearance of the ware is well dated to the early eighth century and, by the middle of the century, jars and jugs in this ware were reasonably common, for instance in the earthquake destruction level at Pella (fig. 5). Painted decoration on jars and jugs consisted of straight and wavy lines, loops, spirals, sprigs, slashed stars and an "arcade" pattern. Around the middle of the eighth century new forms were introduced, notably table bowls, cups and plates. The bowls, probably used for serving food, are technically and artistically excellent examples of the potters' art. Known as "palace ware", these bowls had bevelled rim, straight sides and a flat base. They were slipped and elaborately decorated with linear and floral motifs, apparently based on geometric mosaic patterns. The cups were decorated with wavy lines, plain festoons hanging from the rim, and sprigs, however the style of decoration and fabric is dissimilar to the other red painted bowls and jars. Kilns producing the cups were excavated at Jarash, but the production centre for the "palace ware" bowls and

¹⁰⁰ The following two paragraphs are based on the BA Honours dissertation of K. King, *Early Islamic Ceramics: Red Painted Ware of the 8th and 9th centuries A.D., with Particular Reference to the Site of Pella in Jordan* (BA (Honours) thesis, University of Sydney, 1990). See also Walmsley, "Tradition, Innovation, and Imitation in the material Culture of Islamic Jordan", p. 661.

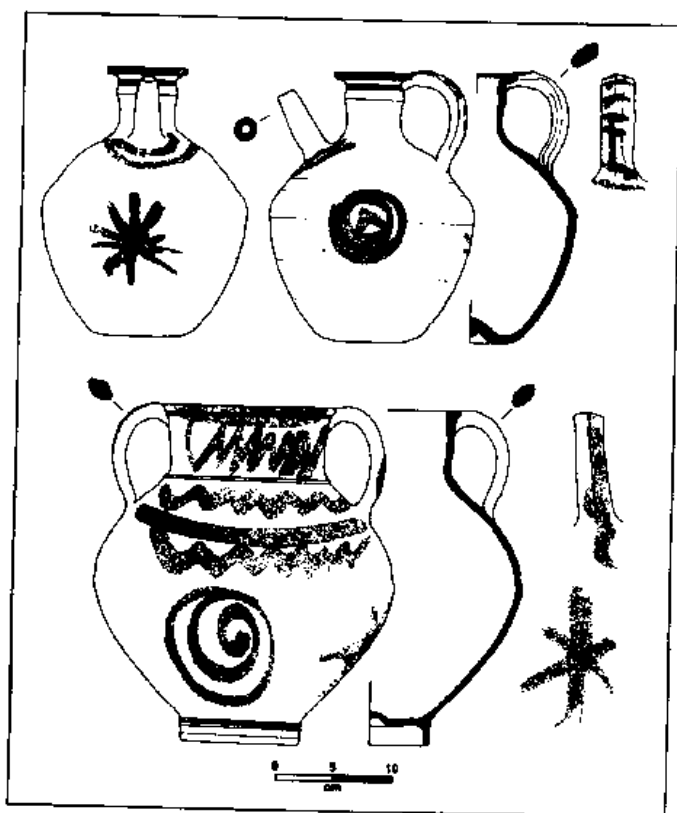


Fig. 5. Cultural innovation and artistic creativity under the Marwānid Umayyads: Red Painted Ware from a mid-eighth century context at Pella in Jordan.

jars is unknown. Their common occurrence around 'Ammān, especially at Rujm al-Kursi, suggests the workshop or shops were located in this area.¹⁰¹

The distribution of RPW was regionally broad. Sites with reported finds of RPW are clustered east of the Jordan River, but its discovery is rare south of the Wādī Mûjib (this tends to discount an origin in Nabataean painted pottery). West of the Jordan RPW has been found extending into the Palestinian hills, mostly between Jerusalem and Nazareth but rarely in the Naqab or on the Mediterranean Coast. Notable is the extension of find sites into the Hawrân, including Busrâ, al-Risha and Usays, an indication of commodity transfer for over 150 km along the north-east bādiyah routes in the eighth and ninth centuries. RPW represents another example of

¹⁰¹ Jarash: M. Gawlikowski, "A Residential Area by the South Decumanus", *Jerash Archaeological Project 1, 1981-1983*, dated to the ninth century; Rujm al-Kursi: A.-J. Amr, "Umayyad Painted Pottery Bowls from Rujm al-Kursi, Jordan", *Berytus* 34 (1986), pp. 145-59, with an imprecise Umayyad date. Evidence from Pella and Jarash suggest a predominantly early 'Abbâsid attribution for "palace ware" bowls.

major innovation in the material culture of the eighth century. A range of quite fine household wares was produced in a new and vigorous ceramic style that seems to appear abruptly and without local precedence. Within a generation RPW was a regular household item and was traded widely in the region, up to 150 km away from the point of production.

As two high quality and well-reported examples of Early Islamic ceramics, PFTW and RPW suggest that trade structures in eighth century Bilâd al-Shâm were built upon a series of overlapping regional networks, each involving the centralised production and distribution of goods. The spread of pottery indicates that these networks could operate smoothly up to 100 km away from the commodity source, but reached a physical limit at around 150 km. The dissimilarity of the ceramics from south Jordan, especially Aylah, and northern Bilâd al-Shâm, notably Dêhès and Qâsirîn (Dibsi Faraj), reinforce the impression of active and regionally distinctive distribution networks.¹⁰² Few imported house wares penetrated this essentially local supply system, unlike the two previous centuries, especially the sixth, when a broader range of ceramics included varieties from Mediterranean locations. Nevertheless, the falling off in supply of externally sourced domestic pottery, especially tableware, was countered with a substantial rise in locally produced pottery types. These were not inferior substitutes, but decoratively innovative and technologically advanced replacements. They further reveal the considerable economic and cultural vitality of eighth century Bilâd al-Shâm.

Wider in their distribution, geographically and chronologically, were amphorae and amphora-like jars, as these were widely traded for their contents (chiefly vegetable oils, date purée, wine and fish paste) in the east Mediterranean. Unlike other classes of pottery,

¹⁰² Aylah: D. Whitcomb, "Evidence of the Umayyad Period from the Aqaba Excavations", in M.A. Bakhit and R. Schick eds., *Proceedings of the Third Symposium, the Fourth International Conference on the History of Bilad al-Sham. Bilad al-Sham during the Umayyad Period*, English Section, Vol. 2 (Amman, 1989), pp. 164-84; Dêhès: D. Orssaud, "Le Passage de la Céramique Byzantine à la Céramique Islamique", in *La Syrie de Byzance à l'Islam VII^e-VIII^e siècles*, pp. 219-28; Sodini, Tate, Bavant, Bavant, Biscop and Orssaud, "Dêhès (Syrie du Nord). Campagnes I-III (1976-1978)"; Qâsirîn: R.P. Harper, "Athis - Neocaesarea - Qasrin - Dibsi Faraj", in J.C. Margueron ed., *Le Moyen Euphrate. Zone de contacts et d'échanges* (Strasbourg, 1980), pp. 327-48; and generally on the regional diversity of Umayyad wares: Sodini and Villeneuve, "Le Passage de la Céramique Byzantine à la Céramique Omeyyade", in *La Syrie de Byzance à l'Islam VII^e-VIII^e siècles*, particularly pp. 211-12.

amphorae are numerically and typologically better represented in the archaeological record of the seventh century than the eighth, which could reflect the decreasing use of amphorae in medium and long distance trade. However, as already noted, it is probably misleading to simply view this change as evidence for a decline in commodity trade after the Islamic conquest. For instance, the evidence from Pella indicates quite clearly that patterns of amphora exchange were not appreciably disrupted by the Islamic conquest, with major amphora types of Palestinian (Gaza), Egyptian and Cypriot origin continuing strongly into the mid to late seventh century.¹⁰³ In the eighth century, when other evidence would indicate a rapid increase in economic activity, the range of imported amphorae at Pella was much less. Specimens recovered from the mid-eighth century earthquake destruction are largely restricted to one variety originating in the Egyptian delta, although as this type of amphora occurs in good numbers the trade in its contents (date purée?) must have been reasonably substantial.¹⁰⁴ Like the Red Slip wares, the absence of other amphora varieties at Pella (and elsewhere) resulted from an end to their production, but this does not discount a continuing trade in their contents in the eighth century using different containers, most notably skins for wine. Nevertheless changing agricultural practises may also account for a drop in the amphora trade. The promotion of agricultural activity by the Muslim elite (as described above) probably resulted in a substantial increase and diversification of crop production. In particular many of the bâdiyah estates of the Umayyad period seem to have focused on olive cultivation and viniculture, especially as grapevines and olive trees, once established, could tolerate the poor, dry soils. Hence the production of these essentials, the principal commodities traded in amphorae, became sufficiently diversified in the eighth century that demand was increasingly met at the local level to the cost of inter-regional trade.

Accordingly, changes in distribution and frequency patterns of

¹⁰³ P.M. Watson, "Change in Foreign and Regional Economic Links with Pella in the Seventh Century A.D.: The Ceramic Evidence", in *La Syrie de Byzance à l'Islam VII-VIII siècles*, pp. 239-40, 245; Watson, "Ceramic Evidence for Egyptian Links with Northern Jordan in the 6th-8th Centuries A.D.", pp. 315-17, 319-20.

¹⁰⁴ The Australian excavations at Pella have recovered twelve examples, seven of which are complete specimens. See: Watson, "Ceramic Evidence for Egyptian Links with Northern Jordan in the 6th-8th Centuries A.D.", in *Trade, Contact, and the Movement of Peoples in the Eastern Mediterranean*, pp. 319-20.

amphorae between the seventh and eighth centuries probably resulted from a combination of unrelated factors. Most importantly, these changes did not herald the end of inter-regional trade, as the many eighth-century Egyptian amphorae at Pella show that trade continued in some commodities at least. Informative is the presence of industrial amphora kilns at Aylah, which probably operated well into the eighth century. The excavators convincingly argue that amphora production at Aylah far exceeded local requirements, and the discovery of Aylah amphorae at seventh to ninth century sites in south Arabia and Ethiopia would indicate they were used to repack the agricultural produce of southern Bilâd al-Shâm (for example the celebrated almonds of Maâb) for shipment by boat on the Red Sea.¹⁰⁵ A major destination for this produce would have been the towns of the Hijâz, where the growth of a large and suddenly wealthy elite would have created an unprecedented demand for products such as oil, wine, grain, dried fruits and nuts. The Aylah amphorae attest to not only long distance trade, but also the common use of other, less visible, containers to move produce within Bilâd al-Shâm. Clearly, the agricultural products had to be brought to the port for reshipment, yet the absence of numerous discarded containers in the archaeological record would suggest perishable materials were used. The general preference for camels as pack animals in Early Islamic Bilâd al-Shâm would have also favoured the use of non-ceramic and easily transportable packaging, for instance skins, sacks and straw baskets.¹⁰⁶ While later in date, the Cairo Geniza is replete with these type of containers being used to transport both liquids and solid articles. The abandonment of amphorae as containers was a progres-

¹⁰⁵ Melkawi, 'Amr and Whitcomb, "The Excavation of Two Seventh Century Pottery Kilns at Aqaba".

¹⁰⁶ The standard use of pack camels is revealed in a requisition of c. 685 to work the Caesarea-Baysân road discovered at Nessana (see: Kraemer, *Excavations at Nessana 3. Non-Literary Papyri*, pp. 209-11, Document 74). The document says, in part, "make sure that you have ready two camels and two labourers who are to perform compulsory service from Caesarea to Scythopolis. Keep in mind also that he (an unnamed senior official) wants good camels, and workmen who have pack-saddles and straps." Note that the camel drivers themselves were to provide pack, not riding, saddles and straps to secure the loads between Caesarea and Scythopolis/Baysân. Carts, probably never popular in the rough terrain of Bilâd al-Shâm, were very rare in Early Islamic times. The Pilgrim Arcuf, who travelled in Palestine sometime between 679 and 688, reported that the pine wood burnt in Jerusalem was "transported on camels, since there are very few wagons or even carts to be found in Judaea" (J. Wilkinson, *Jerusalem Pilgrims Before the Crusades* (Warminster, 1977), p. 106).

sive process, and one that probably began in earnest in the seventh century. As with Red Slip wares, amphora production persisted in Egypt longer than other regions, perhaps as late as the eleventh century. Unlike Bilâd al-Shâm, long distance transport in Egypt was almost exclusively by water (viz. the Nile), which sustained the use of amphora as a medium of transport.

b. *Ceramics, cultural reorientation and the potential for exchange*

At the end of the eighth or the start of the ninth century, a revolution took place in the ceramic repertoire of Bilâd al-Shâm. Until this time, Early Islamic pottery had barely deviated from prevailing Late Roman/Late Antique ceramic traditions, and even new ceramic types including Palestinian Fine Table Ware and Red Painted Ware were produced utilising existing potting technologies. The changes of the late eighth-early ninth century were the first significant break with the past following the Islamic conquest. They required the acceptance of new and exotic styles of pottery and the mastery of new and technologically challenging techniques by local artisans. For the consumer, a significant change in taste was involved. Both form and decoration were strikingly different to existing styles, yet tellingly the new types were rapidly adopted, often to the detriment of "traditional" producers including the potters of Jarash.

The first new type of ceramic was a utilitarian domestic ware, consisting of jars, jugs, flasks and bowls in a soft, aerated, off-white to pale yellow or very light brown ware, and known as Islamic Cream Ware (ICW).¹⁰⁷ The jars and jugs in particular were thinly thrown on a fast wheel, sometimes reaching almost "eggshell" thinness, a process made possible by the use of high-grade clay. Additionally the lower body was often pared (trimmed) which left a flat disk base. Shapes were regularly angular, and were undoubtedly inspired by contemporary metalwork in silver. Decoration involved a combination of clay techniques: incision, applied knobs and bands, shallow ribbing, indentations and grooves. Painted decoration was not applied

¹⁰⁷ For Cream Wares in Bilâd al-Shâm see: J. Magness, "The Chronology of Capernaum in the Early Islamic period", *Journal of the American Oriental Society* 117 (1997), pp. 481-86; Walmsley, "Turning East. The Appearance of Islamic Cream Wares in Jordan - the End of Antiquity?"; D. Whitcomb, "Khirbat al-Mafjar Reconsidered: The Ceramic Evidence", *Bulletin of the American Schools of Oriental Research* 271 (1988), pp. 51-67.

amphorae between the seventh and eighth centuries probably resulted from a combination of unrelated factors. Most importantly, these changes did not herald the end of inter-regional trade, as the many eighth-century Egyptian amphorae at Pella show that trade continued in some commodities at least. Informative is the presence of industrial amphora kilns at Aylah, which probably operated well into the eighth century. The excavators convincingly argue that amphora production at Aylah far exceeded local requirements, and the discovery of Aylah amphorae at seventh to ninth century sites in south Arabia and Ethiopia would indicate they were used to repack the agricultural produce of southern Bilâd al-Shâm (for example the celebrated almonds of Maâb) for shipment by boat on the Red Sea.¹⁰⁵ A major destination for this produce would have been the towns of the Hijâz, where the growth of a large and suddenly wealthy elite would have created an unprecedented demand for products such as oil, wine, grain, dried fruits and nuts. The Aylah amphorae attest to not only long distance trade, but also the common use of other, less visible, containers to move produce within Bilâd al-Shâm. Clearly, the agricultural products had to be brought to the port for reshipment, yet the absence of numerous discarded containers in the archaeological record would suggest perishable materials were used. The general preference for camels as pack animals in Early Islamic Bilâd al-Shâm would have also favoured the use of non-ceramic and easily transportable packaging, for instance skins, sacks and straw baskets.¹⁰⁶ While later in date, the Cairo Geniza is replete with these type of containers being used to transport both liquids and solid articles. The abandonment of amphorae as containers was a progres-

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as a rule. For south Bilâd al-Shâm, ICW represented a major departure in prevailing ceramic traditions, with the inspiration for the shapes, decoration and fabric treatment originating in the fine wares of early 'Abbâsid 'Irâq and common at ninth century Sâmarrâ. A second innovation in the ceramic repertoire of Bilâd al-Shâm was the introduction of various types of glazed pottery, especially splashed polychrome, thick turquoise and "Coptic glazed" varieties. While earlier eighth century dates have been proposed for Coptic glazed ware in Egypt, where the type originated, contexts in Bilâd al-Shâm have been consistently later eighth century and thereafter.¹⁰⁸

The social and economic impact of ICW and the glazed wares, externally inspired but quickly and expertly replicated by local potters, was considerable. Found throughout Bilâd al-Shâm, the widespread adoption of these cross-regional and definitively "Islamic" ceramics reveal a growth in productive contact with Egypt, al-Jazîrah and al-'Irâq. The revolutionary nature of the change was reflected in the demise of two long established local pottery wares, PFTW and Jarash White Painted Ware (JWPW).¹⁰⁹ The distinctive jars, jugs and juglets from Jarash, characterised by a dark reddish body and linear white painted decoration, were manufactured until the early ninth century when, as evidence from Pella shows, ICW vessels performing the same function shunted them off the market. Technically both PFTW and JWPW peaked just before their demise, as demonstrated by the exceptionally delicate PFTW cups, which suggests cultural and not technological factors behind their decline. This substitution of well established local ceramic traditions with exotic styles indicates a ready acceptance of new cultural attitudes from outside Bilâd al-Shâm by the second generation after the overthrow of the locally based Umayyad dynasty. To them it would have been obvious that

¹⁰⁸ G.T. Scanlon, "Slip-Painted Early Lead-Glazed Wares from Fustat: a dilemma of nomenclature", in R.-P. Gayraud ed., *Colloque International d'Archéologie Islamique, Textes Arabes et Études Islamiques* vol. 36 (Cairo, 1998), pp. 21-53; D. Whitcomb, "Coptic Glazed Ceramics from the Excavations at Aqaba, Jordan", *Journal of the American Research Centre in Egypt* 26 (1989), pp. 167-82; D. Whitcomb, "Glazed Ceramics of the Abbasid Period from the Aqaba Excavations", *Transactions of the Oriental Ceramic Society* (1990-1), pp. 43-65.

¹⁰⁹ The ready acceptance of ICW forms may also reflect a more extensive change in tastes, as the jars, jugs and juglets in PFTW, JWPW and ICW all seem to copy metal originals. JWPW probably replicated copper vessels with silver trace inlay (represented by white wavy lines), ICW copied silver work and PFTW, according to Magness, imitated gold originals. If so, the adoption of the ICW shapes at the expense of the "old" PFTW and JWPW varieties also reflects considerable changes in style and preference in metalwork over the eighth and ninth centuries.

the heart of the Islamic world had shifted east to al-‘Irâq, the home of the ‘Abbâsid court. The absorption of Bilâd al-Shâm into a strong and unified Islamic empire not only opened their region to new and universally preferred cultural values, but also would have presented new economic opportunities for both producer and merchant.

c. *Prestige items and trade*

A significant feature in the material culture repertoire of Early Islamic Bilâd al-Shâm, especially in the eighth century, is the frequent appearance of high quality stone and metal objects in the archaeological record, even from quite mundane domestic contexts. The political and economic unity of the Islamic world in the eighth century facilitated the movement of these items over considerable distances. Perhaps, as demonstrated by the Radhanite traders, the post roads of the Empire offered merchants a convenient and comparatively safe transport network while, at the same time, the rise of a new and wealthy elite in the principal cities increased demand.

Copper vessels serving a variety of domestic purposes have been recovered in respectable numbers at a number of Early Islamic sites, including Pella, Jarash, ‘Ammân, Fidayn (Mafrâq), Umm al-Walîd and Usays. Of particular note is the magnificently decorated brazier from Fidayn in north Jordan and a superb dish with an intricate fenestrated ring-base from Pella. Both objects exhibit a close affinity with Coptic art of the period and are, in all likelihood, Egyptian imports. Notably the arcade setting for the fervent “romp” scenes on the Fidayn brazier is a very popular Coptic composition, not only in metal but textiles, book illuminations, murals, wood and stone.¹¹⁰

Steatite was another popular import, almost certainly from the mines and workshops of south Arabia and the Hijâz. Plain and finely engraved flat-based bowls for serving and cooking food are a regular discovery, with examples from Usays, Pella and Aylah for instance. Other items made from steatite, especially lamps, incense burners and small containers, were also favoured imports. While not really

¹¹⁰ Mafrâq: G. Philip, “Art and Technology”, in P. Bienkowski ed., *The Art of Jordan: Treasures from an Ancient Land* (Liverpool, 1991), pp. 86-108, at p. 98, pl. 118; Pella: A. McNicoll, R.H. Smith and B. Hennessy eds., *Pella in Jordan 1. An Interim Report on the Joint University of Sydney and The College of Wooster Excavations at Pella 1979-1981* (Canberra, 1982), p. 140, pl. 59a; Coptic art: A. Badawy, *Coptic Art and Archaeology: The Art of the Christian Egyptians from the Late Antique to the Middle Ages* (Cambridge, Mass., 1978), pp. 321-23, figs. 5.1-2; J. Strzygowski, *Koptische Kunst* (Vienna, 1904), pp. 253-62.

a superior luxury item, the flat based steatite serving bowls, appealingly decorated with intricate geometric and floral designs, gained sufficient popularity that an imitative form in pottery soon appeared to meet demand at the lower end of the market.

These few examples only hint at the broad range of perishable commodities that would have been brought into Bilâd al-Shâm. However, the discovery of carbonised silk clothing with two charred skeletons of earthquake victims at Pella confirms the widespread distribution of prestige goods in the region under the Umayyads.

d. *Coins and trade*

An arguably more valuable indicator of commerce and exchange in Early Islamic Bilâd al-Shâm is the distribution and circulation of coin, both base and precious. The numismatic evidence divides into two distinct categories: coin hoards and site finds. Most hoards consist of precious coin, usually gold *solidi* and silver *drachms* in the seventh century and gold *dînârs* and silver *dirhams* in the eighth, although copper hoards do exist from the seventh century when base coin still retained some commercial value. A number of large hoards in all three metals reveal the extent and nature of commercial contact, direct and indirect, between Bilâd al-Shâm, the rest of the Islamic world, Byzantium and, after the eighth century, Eastern Europe. Site finds, by way of contrast, are predominantly copper, usually Byzantine *folles* and pre-reform Umayyad coinage in the seventh century and Islamic *fulûs* thereafter. Hoards, formed by the intentional collection and concealment of money, and site finds, casual losses usually but not exclusively of low-value, are obviously very different in character, yet both categories preserve a valuable snapshot of the direction and strength of medium and long distance commercial contacts.

Although post-conquest seventh century hoards are relatively uncommon, the few published examples demonstrate conclusively that Byzantine gold *solidi* and copper *folles* circulated widely in Bilâd al-Shâm into the last decades of the century. A hoard found at Palmyra contained 27 gold coins dating from 607 to 649-50, Nablus 29 coins from 607 to 668, Baysân 27 coins from 625 to 685, Damascus 50 coins from 583 to 685, Nikertai 534 coins from 590 to 681, and Daphne (near Antakya) 65 coins from 583 to 681 plus one imitation.¹¹¹ Of these the large Nikertai hoard, found near Apamea in

¹¹¹ See C. Morrisson, "La Monnaie en Syrie Byzantine", in J.-M. Dentzer and

Syria, is the most illuminating.¹¹² The spread of issues, which ranges from Maurice and especially Phocas to Constantine IV, is essentially constant without any appreciable interruption caused by the Islamic conquest. From a total of 516 *solidi* and 18 *semisses*, 345 coins or 64.6% belong to the 50 years 590 to 640 (69 per decade), and 188 or 35.2% to the following 40 years (47 per decade). In the post-conquest period 159 or 29.8% were issues of Constans II, and a further 27 or 5.1% early issues of Constantine IV. More than the other seventh century gold hoards, the size and range of the Nikertai hoard leaves little doubt that Byzantine gold coinage was extensively imported into Bilâd al-Shâm and circulated freely, seemingly as official currency, into the early 680s.

The evidence from the copper coinage, both hoards and excavation finds, is not entirely consistent with the supply patterns of precious coin, notably after the 650s.¹¹³ As with the gold coins, however, the Islamic conquest did not interrupt supply of Byzantine coppers to Bilâd al-Shâm, and large numbers of official Constans II issues continued to arrive in the 640s and 650s. However very few entered Bilâd al-Shâm after 658, and the Constans II *folles* of class 9-11 and coppers of Constantine IV, while not completely absent, are comparatively scarce when compared with figures from Cyprus and Anatolia. The large hoard from the Hamâh area in Syria demonstrates this pattern clearly, as do chance finds from a number of excavations in the region.¹¹⁴ The Hamâh hoard, which must have been concealed in the 670s, also shows that production of local imitations (73 out of 298 coins) of late Heraclius and earlier Constans II

W. Orthmann eds., *Archeologie et histoire de la Syrie 2. La Syrie de l'époque Achéménide à l'avènement de l'Islam* (Saarbrücken, 1989), pp. 191-204 at pp. 198-99 (with references), who lists five hoards of precious (gold) coin containing only official Byzantine issues of Constans II (641-668) and Constantine IV (668-685), and eight "mixed" hoards, seven of which are copper, containing both official and imitation Byzantine issues. Several of the gold hoards were probably concealed during the bloody succession dispute to the caliphate that divided al-Shâm in the mid-680s. Hence, the absence of coins after 685 in hoards or as casual finds may not necessarily reflect an end to supply from Byzantium at that time. Most of the post 685 gold coins would have still been current when, only a few years later, the first dinars were produced and the circulating Byzantine issues melted down.

¹¹² Morrisson, "Le Trésor Byzantin de Nikertai".

¹¹³ For a comprehensive study of both classes of information see: M. Phillips and T. Goodwin, "A Seventh-Century Syrian Hoard of Byzantine and Imitative Copper Coins", *Numismatic Chronicle* 157 (1997), pp. 61-87.

¹¹⁴ Phillips and Goodwin suggest that "the flow of coins ceased because the Byzantines decided unilaterally to stop it", although they concede there are other

types overlapped with the continued import of regular coin from Byzantium. These and other irregular issues spanned the gap between the end of Byzantine supply after 658 and 'Abd al-Malik's official copper series beginning in 692. The wide distribution of both regular Byzantine coin and local imitations in country Bilâd al-Shâm, especially the north,¹¹⁵ reveals the ongoing importance of the monetary economy after the Islamic conquest. The role of base coin was further enhanced, with considerable economic benefits, by the reforms of 'Abd al-Malik at the end of the seventh century.

Table 1. Coins from Jarash: Mints and Totals

Jund al-Urdunn			Jund Filastîn			Jund Dimashq		
<i>mint</i>	<i>pre-reform</i>	<i>post-reform</i>	<i>mint</i>	<i>pre-reform</i>	<i>post-reform</i>	<i>mint</i>	<i>pre-reform</i>	<i>post-reform</i>
Tabariyah	-	37	al-Ramlah	-	9	Dimashq	3 (2)	24
al-Urdunn¶	-	18	Filastîn§	-	2	'Ammân	- (1)	3
Baysân	43# (4)	1	Ludd	-	1	Busrâ	-	1
Jarash	3 (5)	3	Iliyâ	-	3	TOTAL	3 (3)	28
'Akkâ	-	3	Yubnâ	-	1			
TOTAL	46 (9)	62	'Asqalân	-	2	Al-Jazîrah		
			Bayt Jibrîn	-	2	al-Ruhâ	-	12
			TOTAL	0	20	TOTAL	0	12

Notes

¶ Minted in the capital, Tabariyah.

Four specimens were overstruck with Arabic legends: one with the First and Second Shahadah, two with *tayyib* ("good") and one with "Baysân"; see A.R. Bellinger, *Coins from Jerash, 1928-1934*, Numismatic Notes and Monographs no. 81 (New York, 1938) p. 121 nos. 506-509, p. 122 no. 514 respectively. Very possibly Bellinger attributes the pre-reform issues from Jarash to Baysân, so this figure is probably too high and the Jarash figure too low; cf. the Spanish totals (in brackets).

§ Minted in the capital, al-Ramlah.

() Bracketed entries are from the Spanish excavations of the Macellum, and are shown separately as no post-reform totals were available.

possible explanations (Phillips and Goodwin, "A Seventh-Century Syrian Hoard of Byzantine and Imitative Copper Coins", pp. 81-83). They argue that the vast majority of the coppers were sent to Bilâd al-Shâm because of political, not commercial, reasons. The item traded, so to speak, were the coins themselves.

¹¹⁵ For example at Dêhès, see: C. Morrisson, "Dêhès. Campagnes I-III (1976-1978), Recherches sur l'Habitat Rural: Les monnaies", *Syria* 57 (1980), pp. 267-87.

The recovery of pre-reform (Arab-Byzantine) *fulûs* from excavations allows some attempt at documenting the extent, both in distance and volume, of trade within Bilâd al-Shâm, as many of the pre-reform coins can be attributed to a particular mint. Few sites, however, have been sufficiently explored or published to produce enough coins for a valid study, but one of the exceptions is Jarash in Jordan. Coins from the Yale Excavations of 1928-1934 and the Jarash Archaeological Project 1991-1993 are sufficiently numerous to reveal some interesting economic trends (table 1).¹¹⁶ Very noticeable from the pre-reform totals was the confined economic outlook of Jarash in the later seventh century. The pre-reform coins almost exclusively came from mints located in Jarash's own province, the Jund al-Urdunn (55 out of 61 *fulûs*, fig. 6-a, showing percentages). Coins from major neighbouring centres, particularly Busrâ, Damascus and 'Ammân,

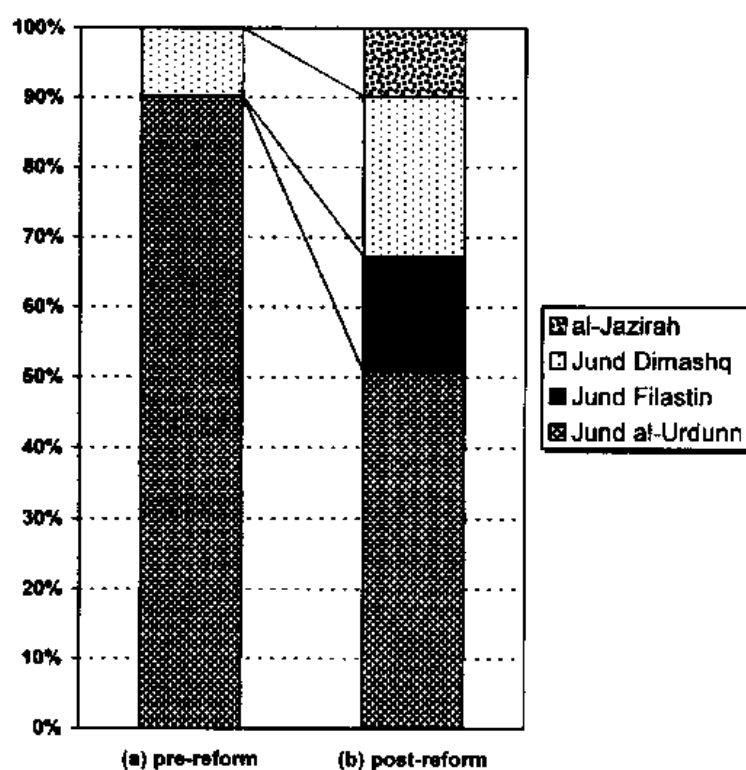


Fig. 6. Origin by province of pre-reform (a) and post-reform (b) Early Islamic coins found at Jarash (see table 1).

¹¹⁶ Yale: A.R. Bellinger, *Coins from Jerash, 1928-1934* (New York, 1938); JAP: T. Marot, *Las Monedas del Macellum de Gerasa (Yaras, Jordania)* (Madrid, 1998), for the coins from the Spanish mission, except the post-reform Islamic varieties. The rest of the coins from the Jarash Archaeological Project are currently unpublished, but are being prepared by the author and Julian Bowsher.

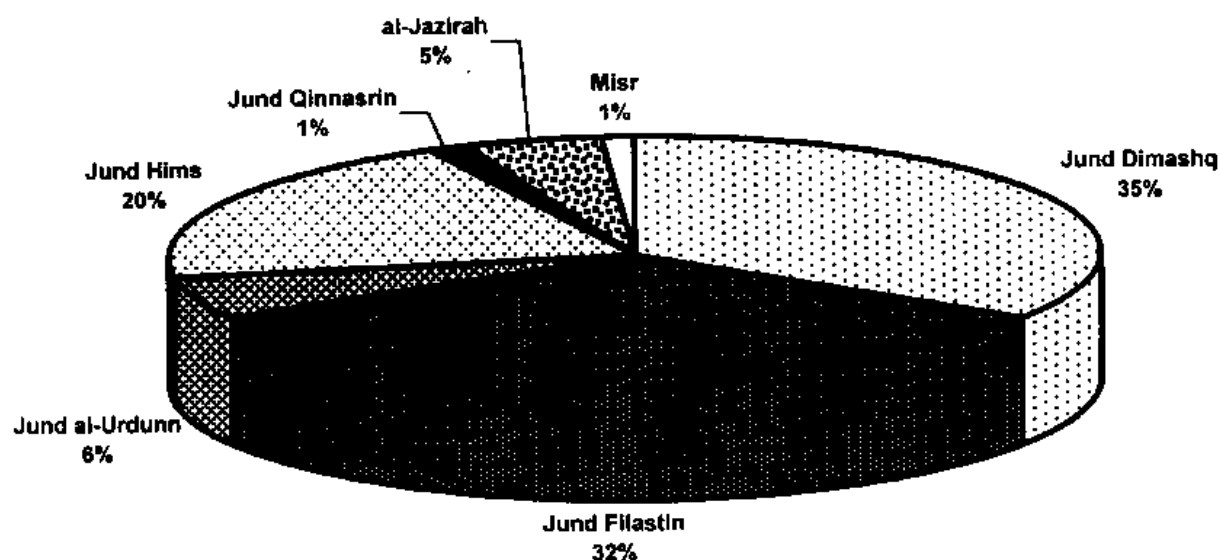


Fig. 7. Origin by province of post-reform Islamic coins from Jericho (see table 2).

are uncommon and issues from mints in Filastin completely absent. While volumes for the different pre-reform types are difficult to establish the figures do suggest that Jarash's commercial hinterland was very limited and did not extend to any appreciable extent outside of its own province.

In the first half of the eighth century, Jarash's economic reach expanded considerably according to the coin data (table 1), even if the majority of coins still came from within al-Urdunn (62 out of 107, fig. 6-b). When compared with the pre-reform totals, the post-reform fulûs from mints located outside al-Urdunn constitute a much larger percentage of the total (46%, compared with 10% of the pre-reform total). The range of mints is also wider: 17 specimens from 5 mints in Filastin, and 28 specimens from the Jund Dimashq, mostly Damascus itself. The expansion of trade links in the first half of the eighth century, as revealed by the coins, would have encouraged economic activity at Jarash, although the continuing scarcity of 'Ammân coins is indicative of limited commercial relations between these neighbouring towns. The economic orientation of Early Islamic Jarash was, rather, to the west and especially with Baysân, 'Tabariyah, al-Ramlah and

the coastal towns of Filastîn, and northwards to the imperial capital of Damascus. A similar pattern is apparent at Pella, although coin totals are fewer.¹¹⁷ A respectable number of mints are represented in the Pella post-reform finds, with specimens from Filastîn, Dimashq and Egypt in addition to the home products of al-Urdunn.

Evidence for an expansion of economic and commercial contacts in the eighth century is mirrored by other numismatic evidence. Hoards and site finds of precious and base coin dating to the first half of the eighth century reveal that coin could move great distances within the confines of the Islamic empire, but much less so outside it. The most illuminating example of Islamic monetary universality under the Marwânid Umayyads is the remarkable Silver Hoard of Damascus, concealed at the end of the Umayyad period probably during the siege of the city by the 'Abbâsid forces.¹¹⁸ The hoard comprised 1309 Sassanid drachms, the earliest dated 543 (Khusru I), 128 Arab-Sassanid dirhams, one Khuwarizmian dirham, and 2377 Umayyad dirhams the last dated 749-50. The hoard was probably compiled in the East as it included surprisingly large numbers of Sassanid and Arab-Sassanid silvers but no Byzantine silver hexagrams, many of which were produced and circulated from 621 until the end of the century. Revealing is the great number of dirham mints represented in the hoard and their geographical spread, although almost three-quarters were dirhams from Wâsit in southern 'Irâq (1748 of 2377 coins, or 73.5%). Another 8.8% (208 coins) were minted in Damascus.¹¹⁹ However the remaining 17.7% came from a wide range of mints: in the far west al-Andalus (Spain, 38 specimens) and Ifrîqiyah (modern Tunisia, 66 specimens), in the far east Kirmân (21 specimens) and Harât (7 specimens) and, to the north, Armîniyah (Armenia, 2 specimens)—that is, almost the full extent of the Umayyad empire. While the absolute numbers of dirhams may be small, their presence is significant as regional mints often operated erratically and at much less volume than Wâsit and Damascus.

¹¹⁷ A.G. Walmsley, "The Islamic Coins", in R.A.G. Carson, K.A. Sheedy and A.G. Walmsley, *Pella in Jordan 7: The Coins from the Excavations, 1979-1990*, Mediterranean Archaeology Supplementary Series (Sydney, forthcoming 2000).

¹¹⁸ M.A. al-Ush, *The Silver Hoard of Damascus* (Damascus, 1972).

¹¹⁹ Of these 62 were struck in 131 H. (749-50). This, and the absence of hexagrams, would suggest that the hoard arrived in Damascus only a short time before it was concealed.

As already established by the Jarash and Pella material, post-reform base coin circulated more widely in Bilâd al-Shâm than its pre-reform counterpart, although it must be remembered it had more time to achieve this and was produced in greater numbers.¹²⁰ Another interesting example is presented by the coins from an excavation at Jericho, which in the Early Islamic period was included in the Jund Dimashq. The excavations produced stray finds and two hoards, with specimens from a range of mints (table 2, fig. 7).¹²¹

Table 2. Post-Reform Coins from Jericho: Mints and Totals

<i>Jund Dimashq</i>		<i>Jund Hims</i>	
Dimashq	29	Hims	17
<i>Jund Filastîn</i>		<i>Jund Qinnasrîn</i>	
al-Ramlah	23	Halab	1
Ludd	3	<i>al-Jazîrah</i>	
Iliyâ	1	al-Ruhâ	4
<i>Jund al-Urdunn</i>		<i>Misr</i>	
Tabariyah	4	Iskandariyah	1
al-Urdunn	1		

The Jund Dimashq and the Jund Filastîn provided almost an equal number of coins. The prevalence of coins from Filastîn should not come as a surprise. Jericho lay on the eastern border of Filastîn, and was strategically located midpoint on the Jerusalem-‘Ammân road, near the Jordan River crossing. The large number of coins from Dimashq can be attributed to Jericho’s placement in that province, yet even so the number is high considering the distance the coins had to travel. The scarcity of coins from al-Urdunn, which abutted Jericho to the north, is unexpected, especially when a much greater number of coins came from the more distant Jund Hims. The coins suggest Jericho’s principal trade axes easily reached north-eastwards as far as Damascus and even beyond,¹²² and westwards to Jerusalem

¹²⁰ Imitation and Arab-Byzantine types were also removed from circulation on a large scale at the time of ‘Abd al-Malik’s reform and either restruck or melted down. See, for a hoard of restruck fulûs, S. Qedar, “A Hoard of Monetary Reform Fulûs”, *Israel Numismatic Journal* (1984-85), pp. 65-75.

¹²¹ G.C. Miles, “Catalogue of Islamic coins”, in J.B. Pritchard ed., *The Excavations at Herodian Jericho, 1951* (New Haven, 1951), pp. 29-41.

¹²² As at Jarash and Pella, there were an inexplicably significant number of coppers from al-Ruhâ (Urfâ, Edessa) in the Jazîrah, located some 665 kms to the north-east of Jericho. As table 1 earlier showed, at Jarash there are no recognisable coins from the intervening provinces of Hims and Qinnasrîn, making the al-Ruhâ issues even more unexpected. This suggests their introduction into al-Urdunn and Filastîn

and Ramlah on the Mediterranean littoral. By way of contrast, the route northwards up the Jordan Valley to Tabariyah was commercially insignificant.

The few ninth and tenth century hoards of precious coin recovered in Bilād al-Shām reveal the continuing unified nature of the monetary system in the Islamic world, even though political unity was lost with the progressive disintegration of the 'Abbâsid caliphate. For instance, no less than ten Islamic dynasties are represented in a major hoard of 376 dinars found at al-Ramlah.¹²³ Although the coins date from between 761 and 979, about half were Hamdanid and Bûyid issues produced in northern 'Irâq and Iran over a reasonably short fifteen-year period. The geographical spread of mints is equally impressive, ranging from al-Muhammadiyah (in Algeria) to Armîniyah in the east. A hoard of 90 silver pieces from Tel Isdûd (Âzdûd) north of Gaza similarly reflects the extent of the monetary economy in the Islamic world of the tenth century.¹²⁴ Six dynasties and numerous mints are represented, with the majority from the Filastîn mint (al-Ramlah). While very much a locally compiled hoard, coins from Baghdâd, Arrajân (in Fârs) and even Constantinople (a miliaresion of Basil I and Constantine) were current in Filastîn for inclusion in the hoard.

One of the most remarkable and far-reaching initiatives in Early Islamic trade was the forging of profitable trade routes into Eastern Europe, beginning in the late eighth to early ninth century. Literary sources and numismatic evidence equally reveal that between the early ninth and early eleventh centuries Muslim merchants actively bartered with Rûs ("Russian") traders, exchanging dirhams and dinars for furs and slaves. As the written sources refer to the mid-ninth century and later, the most valuable and reliable evidence for the start and development of trade between the Islamic world and Eastern Europe are the numerous dirham hoards recovered in Russia and the Baltic.¹²⁵ Two major conclusions can be drawn from these hoards.

was not accidental, and probably represent low value military pay carried by troops returning from the Byzantine border region.

¹²³ S. Levy and H.W. Mitchell, "A Hoard of Gold Dinars from Ramlah", *Israel Numismatic Journal* 3 (1965-66), pp. 37-66.

¹²⁴ J.L. Bacharach, "A Hoard of ' 'm Dirhams from Tel Ashdod", *Atiqot* 14 (1980), pp. 83-92.

¹²⁵ See the detailed studies in T.S. Noonan, "Ninth-Century Dirham Hoards from European Russia: a Preliminary Analysis", in M.A.S. Blackburn and D.M. Metcalf eds., *Viking-Age Coinage in the Northern Lands: the Sixth Oxford Symposium on Coinage and*

Firstly, the make up of the hoards indicates that the dirhams were directly imported from current stock in the Islamic empire. Their compositions are compatible with hoards of the same date recovered within the Islamic empire, yet are quite different from hoards found in Transoxiana. As is to be expected many mints were represented in the Eastern European hoards, although most coins were 'Irâqi or North African products.' Secondly, the dirham hoards from the Caucasus reveal that Islamic trade with Russia was initially conducted over a westerly Caucasus or Caspian route, and not over any eastern route through central Asia. Hoard dates suggest that a western route to Eastern Europe was established in the 770s-780s, with the volume of exchange reaching significant proportions in the early ninth century.

The mechanisms by which trade first took place between Muslim and Rûs merchants can be identified through an analysis of the composition and chronology of early ninth century dirham hoards from the Caucasus.¹²⁶ Although written sources of the mid-ninth century and later only describe a sea route across the Caspian, the hoard evidence convincingly shows that trade with European Russia was, at first, conducted over a land route through the Caucasus. The appearance of dirham hoards in the Caucasus coincides with the appearance of the first hoards in Eastern Europe, and it is difficult to avoid the conclusion that these two events were linked in some manner. Furthermore, hoards from both regions were similar in their composition, to the extent they shared one important difference with other hoards concealed in the Middle East at about the same time. Unlike the Middle East hoards, the newest dirham (or failing that one of the most recent) in the hoards from the Caucasus and Eastern European was the product of a south-Caucasian mint, often Armîniyah. Clearly, these newly minted dirhams could have only been added to

Monetary History, BAR International Series 122 (Oxford, 1981), pp. 47-117; T.S. Noonan, "The Regional Composition of Ninth-Century Dirham Hoards from European Russia", *Numismatic Chronicle* 144 (1984), pp. 153-65; T.S. Noonan, "Why Dirhams First Reached Russia: the Role of Arab-Khazar Relations in the Development of the Earliest Islamic Trade with Eastern Europe", *Archivum Eurasiae Medii Aevi* 4 (1984), pp. 151-282; also the analysis in Hodges and Whitehouse, *Mohammed, Charlemagne & the Origins of Europe*, pp. 111-26. Although continuing long after the period under consideration in this study, Muslim trade with European Russia commenced in the late eighth century and grew strongly in the early ninth. Its development represents an important turning point in the orientation and structure of Islamic trade, and so requires some treatment here.

¹²⁶ See especially Noonan, "Why Dirhams First Reached Russia".

an existing trade collection while the hoard was in transit through the southern Caucasus.

Critical in the formation of a secure trade route through the Caucasus at the end of the eighth century was the dramatic improvement in Muslim-Khazar relations. For over a century the Khazars and the Muslims had competed for domination over the Caucasus, reaching a peak in the early eighth century with the appointment of Maslamah b. 'Abd al-Malik (builder of Hisn Maslamah, see above). His aggressive confrontation with the Khazars for control over the northern Caucasus brought an equally aggressive response, but neither side could force a resolution to the conflict. By the mid-eighth century it was apparent to both sides any further escalation of the conflict would be costly, and following the rise of the 'Abbâsids a new policy of rapprochement was implemented by the Caliph al-Mansûr. 'Abbâsid priorities were directed elsewhere, notably towards the escalating war with Byzantium and suppressing internal revolts while, at the same time, the Khazars faced growing pressure from Byzantium. With both parties disheartened and distracted, the second half of the eighth century was characterised by a gradual de-escalation of the conflict and a reciprocal growth of trade through the Caucasus. The new era in Muslim-Khazar relations which resulted corresponded, accidentally or otherwise, with the meteoric expansion of the 'Abbâsid economy of which the Eastern European trade formed a part.

The export of dirhams to Eastern Europe and the Baltic continued in large numbers until the early eleventh century, yet the presence of hoards in the Caucasus datable to the 860s and 870s declines significantly before they disappear altogether. The falling number of hoards would argue for an end to any significant trade over the Caucasus routes, and this conclusion is supported by the written sources dating from the second half of the ninth century and after. In the earliest of these works, the geography of Ibn Khurdâdhbih,¹²⁷ Rûs merchants cross the Caspian Sea from the Khazar-held Volga delta to the port of Jurjân on the south-eastern coast. From Jurjân, the Rûs merchants were able to reach Baghdâd and other market centres in the Islamic realm. By the end of the century Muslim-Rûs trade was largely confined to the new maritime route, along which thousands of dirhams travelled into Russia and, by way of Viking contacts along the Volga, further afield to Scandinavia.

¹²⁷ Ibn Khurradadhib, *al-Masâlik*, pp. 115, 153.

By way of contrast base coinage, although reformed under the 'Abbâsid caliph al-Ma'mûn (813-33), became progressively insignificant for commercial transactions in the ninth century. By the century's end the face value of fulûs had lost any meaning due to the disintegration of the 'Abbâsid caliphate as a political and economic force. The effective demise of an empire wide unit of small change also sees an end to a very illuminating source of information on exchange in the Early Islamic world.

5. *The eighth century: defining moment or passing phase?*

The Eastern Mediterranean littoral in the seventh century was subjected to a series of politico-military shocks with long term consequences to the region's economic systems. The overthrow of Maurice, the revolt of the Heraclii, and the Sassanid invasion were swiftly followed by the profoundly significant Islamic conquest of 622-640. Twenty years later Damascus, located in the geographic centre of Bilâd al-Sham, became the capital of a rapidly expanding empire. In every case, however, these events did not result in sudden and catastrophic change to existing economic systems, even if coin hoards suggest short-term disruptions did occur. Production and exchange at the local and regional level was already in considerable flux at the start of the seventh century, before the troubles set in. The following decades introduced additional challenges, but the archaeological record, from local ceramic production to coin supply and circulation, indicates that the economy was able to adapt with only the occasional failure to the new socio-political environment.

The rate of development to existing economic structures and trade systems quickened in the late seventh century, and particularly with the accession to the caliphate of the active 'Abd al-Malik in 685. The evidence for a period of major and permanent change, which is considerable, is found across a range of historical, archaeological, and numismatic sources. Clearly significant were the monetary reforms, by which a common and officially sanctioned currency was created for the whole empire. Other major initiatives included administrative reforms, particularly the adoption of Arabic as the language of government, and a program of massive urban and rural renewal especially improvements to the commercial infrastructure of towns. The promotion of new urban centres and their elites, notably

Damascus, and the obligatory distribution of wealth to the Muslim hierarchy of Bilâd al-Shâm and the Hijâz resulted in a substantial re-orientation of trading systems. Overall, these changes greatly favoured economic growth particularly in the first half of the eighth century. However, some centres were disadvantaged, for instance Ludd by the foundation of al-Ramlah as the new capital of Filastîn, and Baysân by the elevation of Tâbariyah to provincial capital. The numismatic evidence reveals a general broadening of trade following the reforms, yet the ceramics indicate that commerce within Bilâd al-Shâm was conducted through a series of overlapping networks rather than by way of one large common system. The structure of Early Islamic government may partly account for this arrangement. Under the Umayyads and early 'Abbâsids the administrative and tax structures were regionally, not centrally, based. Most tax, which included goods in kind notably wheat and oil, was distributed at the provincial level and only relatively small amounts were remitted to central treasury. Long distance exchange, to the extent it relied upon imperial structures, would not have been encouraged by this system of decentralised administration.

In economic terms, the 'Abbâsid revolution and the subsequent foundation of Baghdâd resulted in major transformations to the trade systems of the Islamic empire. Baghdâd and the other 'Abbâsid foundations in al-'Irâq created an enormous demand for consumer goods arguably not seen since Rome in its heyday. Social and political changes also encouraged the growth of a merchant economy, especially in the ninth century. The centralisation of government by the 'Abbâsid administration and the reciprocal disempowering of regional elites fostered trade links over increasingly greater distances. By the end of the eighth century merchants, Muslim and non-Muslim, were travelling long distances by land and water to destinations beyond the Islamic realm to acquire desirable commodities for the profitable markets of an increasingly sophisticated and culturally unified Islamic society.